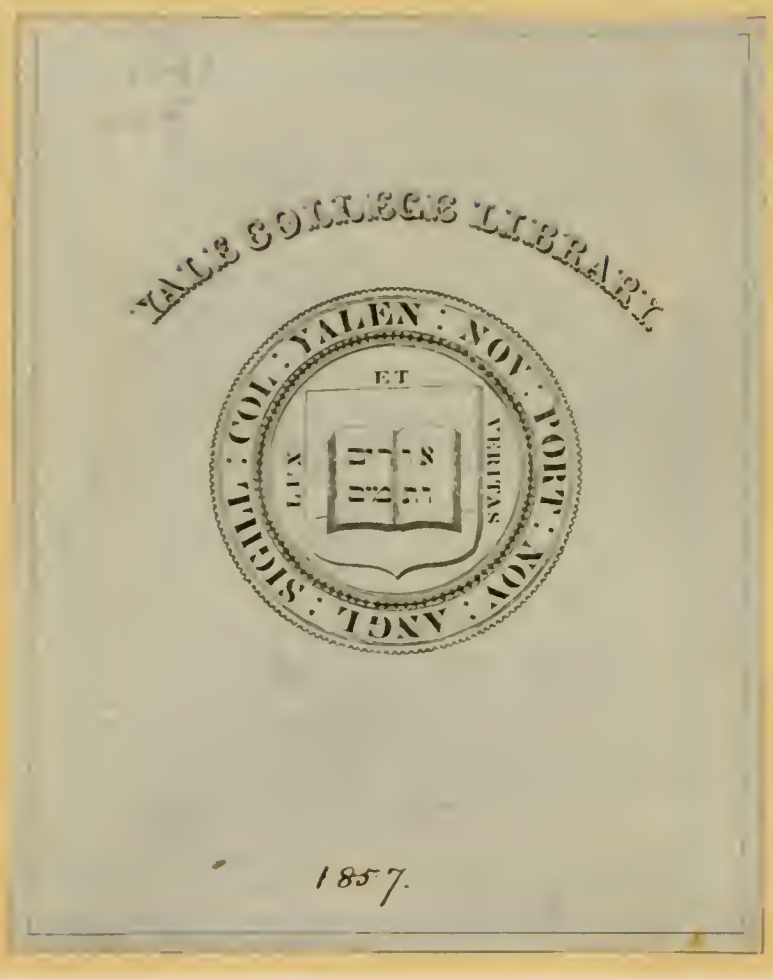

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A

TREATISE

ON

HEALTH,

ITS

AIDS AND HINDRANCES:

CONTAINING

AN EXPOSITION

OF THE

CAUSES AND CURE OF DISEASE,

AND THE

LAWS OF LIFE.

AND NOTICING THE AFFECTIONS OF THE HEAD, THROAT, LUNGS, HEART, LIVER, STOMACH, BOWELS, KIDNEYS, BLADDER, WOMB, SKIN, BONES, JOINTS, MUSCLES, ETC.

BY SAMUEL SHELDON FITCH, A.M., M.D.,

AUTHOR OF "SIX LECTURES ON CONSUMPTION," AND FOUNDER OF A SYSTEM OF PRACTICE BY WHICH PHTHISIS IS FOUND TO BE CURABLE BY MEDICAL ART.

"The Most High has created the Medicines out of the earth, and he that is wise will not abhor them."—ECCLESIASTICUS, xxxviii. 4.

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PREFACE.

It is now nearly eleven years since the author published the first edition of his "*Six Lectures on the Causes and Cure of Consumption*," etc.; and in that time he has had very ample opportunity of practically testing the correctness of the views he there announced. The position taken in that work that *pulmonary consumption is curable by medical treatment*, with the proof presented that the author had succeeded in curing it, attracted very general attention, and brought to his office in New York, for consultation and treatment, invalids from all portions of this country, and even from Europe and other parts of the world. His practice, having had this wide range, and embracing, as it has, in its scope over seventy thousand patients, of all classes and ages, and of both sexes, has enabled him to determine with great accuracy, how much is due to climate, to habits of life, to hereditary peculiarities, and to the various influences acting upon us, both in producing and preventing or arresting this disease. He has also been enabled to ascertain, by personal observation, how much and what efficacy there is in the various remedies and modes of practice—whether *regular* or *irregular*—which have at one time and another challenged public attention in the treatment of consumption. The result has been not only completely to demonstrate, as he believes, the truth of the doctrines heretofore announced by him, but to impress still more forcibly on his mind their great practical importance.

And now it is from a sense of duty, as well to those who are fall-

ing victims to this terrible scourge, as to the medical profession and the community at large, that he has prepared this volume, in which are more fully unfolded his views of the causes and nature of phthisis, and the system of remedial measures which may be made effectual in curing it; also the general results of his experience and observations as gathered from his practice.

In a practice thus widely extended, the author has necessarily been called upon to treat a great variety of chronic disorders besides such as are peculiar to the lungs and throat—those complicated with and tending to consumption, as well as those that are independent of pulmonary affections; and in observing the very uniformly successful result of the treatment employed, he has seen it demonstrated that nearly all the prevalent chronic diseases—such as *heart disease*, *liver complaint*, *chronic diarrhœa*, *constipation*, *skin diseases*, *kidney complaints*, *gravel*, *piles*, *rheumatism*, *female complaints*, etc.—are entirely amenable to medical remedies, correctly employed. A consideration of these maladies occupies considerable space in this Treatise.

From the favor with which his former book has been received, the author gives this volume to the public in the hope that he will at least have the credit of desiring to be useful in doing so. He has only aimed to convey what he regarded as important truths, in plain, untechnical, intelligible language; and if he shall be instrumental in contributing to alleviate human suffering, to promote health, and prolong life, he will have secured his reward.

714 *Broadway, New York, May*, 1857.

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INTRODUCTION.

The late celebrated Dr. Rush, of Philadelphia, was once asked whether he believed the Profession of Medicine had been, on the whole, a benefit to the world. "Do you," he inquired in reply, "intend to include in 'the Profession,' *old women* and *nurses?* If so, then I answer, yes; if not, doubtful." Says the French physician and author, Bichat, speaking of the "Science of Medicine:" "An incoherent assemblage of incoherent opinions, it is, perhaps, of all the physiological sciences, that which best shows the caprice of the human mind. What do I say? It is not a science for a methodical mind. It is a shapeless assemblage of inaccurate ideas, of observations often puerile, of deceptive remedies, and of formulæ as fantastically conceived as they are tediously arranged." Said another French physician and professor, Magendie, in a recent lecture to his class of students in the city of Paris: "Gentlemen, Medicine is a great humbug! I know it is called a science: science, indeed—it is nothing like science! Doctors are mere empirics, when they are not charlatans. We are as ignorant as men can be. Who knows any thing in the world about Medicine? * * * Who can tell me how to cure the headache? or the gout? or disease of the heart? Nobody. 'Oh,' you tell me, 'doctors cure people!' I grant you, people are cured; but how are they cured? Gentlemen, nature does a great deal; imagination does a good deal; doctors do.... devilish little.... when they don't do harm!"

These are certainly neither complimentary nor hopeful views of Medicine. It may, however, be presumed, I think, that the men who spoke thus bitterly, did not intend that we should understand their caustic language in a strictly literal sense. They have evidently

taken a little license with facts, in their ambition to give epigrammatic point and sharpness to their periods—to say striking things. And yet they do plainly intend to declare a great want of faith in Medicine, both as a science and as an art. And when it is remembered that these men are the "lights" and "guides" of the medical profession, confessedly standing at its head, the unsophisticated, non-professional reader at least may, we confess, very well be excused if he is somewhat astonished at the glimpse "behind the scenes" which they afford him. And it should be added that Rush, Bichat, and Magendie are not the only physicians who have fulminated such terrible criticisms upon *Medicine;* they are but the representatives of a large class who, either openly or to themselves, denounce while they practice it. Indeed, the *medical infidelity* to which these men honestly give expression, pervades to a most lamentable extent the whole profession. There are wide-spread skepticism, doubt, uncertainty, and embarrassment, with regard to the *value* of medical remedies and treatment in the cure of disease, prevailing extensively among physicians; and this skepticism is rapidly spreading among the *people.* It cannot remain confined to the profession. The absence in the physician of heart-felt faith in medicine cannot long escape the notice of the patient, whatever attempts may be made to disguise it. The resolutions of medical conventions, the addresses of medical professors, the protestations issued through medical periodicals and books, or whatever other expedient may be resorted to, will do but little to sustain the waning confidence of the people in the benefits of Medicine, so long as those who administer it hesitate and doubt.

It becomes, therefore, a most important subject of inquiry, whether Bichat is right in declaring that "Medicine is not a science for a methodical mind;" whether Magendie states the truth when he exclaims, "Medicine is a humbug;" and whether Rush had good ground for doubting whether the Profession of Medicine had, on the whole, been of benefit to the world. If they have herein really told us the truth, then it is still more important to inquire, whether this great *failure* of Medicine, for a failure it is, has resulted from an *inevitable necessity*, or from the fault of its professors?

I do not propose to enter at length upon a discussion of these questions—this would require more space than can be properly occupied here. But I will throw out a few suggestions, which may, per-

haps, indicate to the desponding practitioner of Medicine the road of investigation wherein he will discover an escape from his skepticism, and to the invalid a ground of confidence in the "Healing Art."

In doing so, it is proper to bring distinctly before our minds the great *object* of Medicine; and let me remark, that whether regarded as an art or as a science, it will not be denied by any one that to the physician, as such, this object is simply *the prevention and cure of disease.* Its aim is one of immediate practical utility and usefulness. In the circle of sciences there are those—that of music, for example—which, like the ornaments of our dress and the adornments of our dwellings, have for their purpose the gratification of our taste, or the polishing of our minds—they are among the *embellishments* of life. There are others which embrace in their design both ornament and use, contributing at once to our pleasures and our necessities. Astronomy, for instance, reveals to us the sublime wonders of the heavens, and we may study it, either, on the one hand, to unfold our minds, give breadth and compass to our intellects, and kindle our admiration and reverence for its Great Author; or, on the other, to enable us successfully to traverse the ocean with our ships, and map out the geography of our globe. *Medicine*, however, has *only* a practical value. There are, it is true, embraced in the range of study necessary to equip the physician for his duties, many subjects which are worthy of pursuit for themselves, or merely as mental accomplishments. In this view anatomy, physiology, botany, chemistry, and many other sciences, are of high interest. But it is not with this view that the *physician* masters them; this is not the place they occupy in the comprehensive system of *Medicine.* Here their exclusive office is to subserve the practical end of preventing and curing the diseases to which our race is subject; aside from this, they have here no value.

Now, if we turn to the history of Medicine as it is recorded for us, and notice the position in which we find it at the present time, I apprehend we shall be struck with the fact that, instead of its true design, as above stated, having been always kept steadily in view by our profession, it has been too much regarded as a science—a department of study and labor—having a value in and of itself—a dignity and importance of its own; not as a mere instrumentality to a practical end, and to be made at all times subordinate to that end, but rather as itself an end. From the earliest periods, when the

demons of disease were exorcised by jugglery and incantation in the temples of the Egyptian priesthood, down through all the schools and sects, the discoveries and improvements, the developments of science and the progress of learning, to our own day, we find the traces of an ambitious pretension in behalf of Medicine simply as a learned profession, laying claim to *dignity* and the homage of the world, rather because of the intellect, the learning, and the science by which it has been illustrated, than because of the actual good accomplished by it. To be sure, such an ambition is not in terms avowed. On the contrary, it is in terms frequently denied; and Medicine is even defined in our text-books as a science which has for its object the prevention and cure of disease. Still this ambition exists, lurking in our colleges and schools, and pervading to a great extent our ranks. To be convinced of it, we have but to call to mind any of the great masters in our profession, whose names the world recognizes as illustrious. Upon what does their fame rest? Is it based upon the triumphs which they themselves are known to have achieved over disease? Have these men towered above their contemporaries because they have themselves been more successful in curing disease than all others? What, in fact, do we know of the private practice of very many of them? How often is even inquiry made as to what the result of that practice was, or whether they were themselves successful practitioners or not? Is it not rather the fact that they have acquired their celebrity by some unusual exhibition of intellectual or scholastic accomplishment—by propounding a novel theory, by writing an erudite book, by delivering brilliant lectures, by founding a new sect, or by some other remarkable achievement in the world of science or letters? It is true that there have been and are those who have become celebrated by their researches in anatomy and investigations in physiology—by their intimate knowledge of the human frame, its condition in health and its altered condition in disease; others, again, by making new and valuable discoveries, such as the circulation of the blood, and the prophylactic virtues of vaccination—who have thus really been of great benefit to the world by directly promoting the prevention and cure of disease. Still, few of even this class of men are known to us as themselves excelling in the *art of healing;* and how very small is the proportion of all our medical celebrities whose fame is founded upon their own personal success in the use of medical remedies! Is it not true, therefore,

that even in the awarding of honors among us, *science*, as such, has a higher place in the scale of merit than skill and practical success? —that we place the mere means and instrumentalities of Medicine before its great purpose and design?

Again, why is it that there is among us so jealous a watchfulness to guard what are called the *honor* and *dignity* of our profession? Why is it felt to be a greater stain upon professional character to employ remedies which have been condemned, *ex cathedra*, as "empirical" or "quackish," even though life is saved by them, than to kill a patient by the blundering use of an "orthodox" medicine? Why is it that we "cry havoc, and let slip the dogs of war" against every man who undertakes to cure the sick upon any other system than that denominated the "regular practice," however skilful and successful he may be—while at the same time we throw the shield of our professional influence over all who stand within the pale of "regularity," however unskilful and unsuccessful? Why is the "irregular" practitioner, when accused of harming his patient, condemned without a hearing, and the "regular" physician, under like accusation, acquitted without a defence? Why are the errors of the so-called "empiric" blazoned and magnified, while the errors, equally hurtful and disreputable, of the "rationalist" are apologized for and covered up?

No one can successfully deny that these inquiries point to incontrovertible facts: and, now, can these facts be explained upon the hypothesis of a controlling regard for human health and life? Is it true that the scale of "dignity" in medicine is really graduated with a single reference to *skill in preventing and curing disease*—skill which has been demonstrated by actual success? Is the most honor awarded to that physician who cures the greatest number of his patients and saves most lives, without regard to the school or sect to which he belongs or the system of treatment he employs? In a word, is the exhibition by the physician of *practical skill and capability to cure the sick* the only criterion of merit and honorable position in our profession—competent intellectual and moral qualities, of course, being assumed? We all know that it is not. On the contrary, the man who presumes to present himself before the community as a practitioner of Medicine, whatever may be his qualifications or his skill, unless he confesses allegiance to the predominant, reigning school of Medicine, and shapes his course by the rules issued

from it, he is at once by that school branded and persecuted, held up to public contempt, denounced as unworthy of public confidence, and unfit for "honorable" professional association. Until he "passes under its yoke," his claims or merits will not even be examined. However triumphant he may be in conquering disease, and however overwhelming may be the testimony presented that he is so, unless he bows to the authority of "science" as taught in this school, he is anathematized. This is not all: when he has once submissively taken his place in the ranks of the "regulars," he must never think of standing out of line with impunity. No deviation from the prescribed routine will be tolerated. If he tampers for a moment with forbidden remedies, or ventures upon a course of treatment not laid down in the chart of his school, he does so at the hazard of losing caste and position, and being "drummed out of camp."

It is not difficult to perceive in these facts a source of hindrance to the progress of medical improvement, and the efficiency of medical practice. The circumstances adverted to fetter and cramp the energies of the practitioner. The physician who feels it to be his *first* duty to uphold the "dignity of his profession," making the *cure of disease* in any degree subordinate, is necessarily embarrassed in his practice, and will inevitably meet with failure and disappointment. He cannot have that freedom in the choice and use of remedies so essential to success. His range of resources becomes circumscribed within the limits of certain arbitrary lines; and he dare not step over these lines, because he can do it only at the sacrifice of his "professional standing." He may witness the repeated cure of diseases unmanageable in his hands; but if the remedies and the system of treatment by which the cures have been effected are condemned by his "school," he must not adopt them—no, not even investigate them. It certainly cannot be denied, I think, that if "professional reputation," "honor," and "dignity," were made to rest upon actual skill, usefulness, and success in the treatment of disease, and not so much as they do upon an adherence to arbitrarily established doctrines of "legitimacy," "orthodoxy," "regularity," etc., nor upon mere "scientific" acquirements, Medicine would be more progressive, more successful, and more useful, physicians would have more faith in its value, and the people more confidence in its efficiency. We should not then have to witness such mortifying confessions as those I have quoted from Bichat and Magendie.

Another reason why Medicine has not yet been so far systematized, and had imparted to it such a degree of certainty as to entitle it to be truly called a science, and why there is both among physicians and patients a want of faith in it, may, I apprehend, be found in the fact that those leading men in our profession who have been engaged in the work of constructing it into a science, have, almost without exception, each for himself, adopted as true some favorite idea, placing it in the centre of his system or theory, and then excluding all other systems and theories as having no foundation whatever in truth. Let any one study, without partisan bias, the history of Medicine, and he cannot fail to notice that for each of the various systems that have existed, or that now exist, its founder and adherents have claimed that it embraces the *whole truth*, and that all others are entirely false; and he will at the same time, if he is an intelligent and scrutinizing student of this history, plainly discover that in each there is only a partial comprehension of the entire facts presented in the phenomena of disease and remedies—that in all, both error and truth are to be found.

A glance at some of the prevailing theories will illustrate my meaning. Take, for instance, those of the two rival sects, known as the *Rationalists*, or Dogmatists, and the *Empirics*—sects that began to divide the medical world as long ago as the time when the school of Alexandria, in Egypt, first rose into estimation, some three hundred years before the Christian era, and have continued to divide it until the present day. On the side of the Rationalists, it has been contended that the observed effects of remedies, or therapeutical agents, constitute no proper guide in their administration; in other words, that because a remedy is known to have cured in one case, it is but little evidence that it will cure in another apparently similar; but that we should learn the structure and functions of the body, the nature and cause of disease—both the concealed and essential cause as well as that which is obvious—the changes produced by what are denominated "morbific" agents, and the *modus operandi* of remedies; and then from the premises thus established we should deduce our system of treatment, and make the application of our remedies. The Empirics, on the contrary, have held that the knowledge which the rationalist thus declares to be requisite is not to be attained; that it is impossible to acquire an insight into the essential nature or causes of disease; that all that can be done is to observe the

outward phenomena of disease, and by experiment ascertain the effect which our remedies have under observed symptoms; then, if found to be favorable, to give the same remedies when similar symptoms again present themselves. These doctrines have, it is true, been modified somewhat since they were started, but still they have retained sufficient of their original character to trace a broad line of distinction between *rationalism* and *empiricism* to this day.

Now it would seem that no sensible physician could fail to see that the truth lies between these extremes; and that both are partly true and partly false. It is certainly true that all our knowledge of the human frame, its structure, and condition both in disease and in health, as well as of the action and effects of remedies, must be derived from actual *observation*, and not from any species of *reasoning;* also that it is essential to observe all the external symptoms of disease, and have reference to them in the exhibition of remedies. But it is equally true that the facts which we are enabled thus to learn from observation, are susceptible of being reduced to a methodical system; and that very important general conclusions may be drawn from them to guide us in practice. Thus we reach what has been well termed a "rational empiricism," in which is the truth.

Again, take the two theories known under the names *Vitalism* and *Solidism* on the one side, and *Humoralism* on the other. These also had an early origin, the former claiming Pythagoras and the latter Hippocrates for its author, and now, after the lapse of over two thousand years, are dividing the profession into rival sects, who are as actively discussing their relative merits as though they were just started. In these sects we notice the same tendency I am pointing out, of considering facts too exclusively under one aspect, and bending all observed phenomena to one favorite idea. Those who adhere to the *vital* theory, tell us that the orderly and harmonious discharge of the functions of the organic being is dependent upon the normal or natural condition of what is termed the *vital principle*, and that whenever this principle is disturbed or impaired, there is disorder and confusion; *therefore*, that *all* disease is a *result* of some modification of vitality—that the only way in which disease can be cured is by restoring the altered vitality to its natural condition,—medicines acting *upon this vitality*, and only upon it, when they act at all. They direct us, therefore, to look for the *cause* of disease in the *living principle*, not in the material, visible being. They teach us

also that all "morbific" agents, as they are termed—that is, all primary causes of disease—act only upon the *solids* of the system through the vital principle. The *humoralists*, on the contrary, insist that the cause of disease resides in all cases in the *fluids* of the system, and that the altered condition of both the *solids* and the *vital principle* is related to disease as its effect, not its cause.

To illustrate—here is a person who has the small-pox: says the vitalist, the "morbific" agent in this case, the specific virus or poison which has generated the disease, has acted primarily on the *vitality* of the system, deranging its orderly manifestations, and the consequent disorder has fallen directly upon the *solids* of the body, of which the various organs are composed, thus impairing their functions; then that, as a consequence of impaired function in these organs, the *fluids* are deteriorated, and the phenomena of small-pox presented. On the other hand, the humoralist says the specific poison has been infused at once into the blood, and changed its normal condition; the blood is infected and poisoned, and being so poisoned, it becomes the medium of effecting a morbid change in the solids, and thus injuriously impressing the *vital* force. What is thus declared on the one side and the other to be true of small-pox, it is insisted, is the true explanation of *all* disease. And in conformity with these diverse theories, the vitalists, on the one hand, address their remedies in *all cases* to the modification of the vital principle, and the humoralists, on the other, to the modification of the blood.

Can an impartial investigator doubt that these theories are both partly true and partly erroneous? Can any refinement of reasoning convince a candid mind, when the virus of small-pox is seen to be put into the blood by innoculation, and cutaneous eruption, pustulation and disease follow, that the blood is incapable of direct infection, and that the phenomena we witness are not the *effect* of this infection? A man drinks largely of alcohol: we then open a vein, and find this agent there, mingled with the blood, so copiously, it may be, that we can smell it, taste it, and set it on fire. Can we doubt that the *blood is poisoned*—that the "morbific" cause has here exerted its destructive influence primarily on the "pabulum of life," and that as the hot and poisoned current rolls through the channels of circulation and is poured over the living tissues it becomes a source of the disease—the deadening of the sensibility, the palsying of the muscles, the imbe-

cility of the mind, and the depression of the vitality—which takes place? But there is just as little doubt that it is possible that the *vital principle* may be affected directly, and that then its disturbance may become a source of disease. There is certainly one class of causes which act thus. I refer to mental affections. An *emotion* of the mind will send the red blood to the cheek, or drive it back to the heart, leaving the face blanched and pale. So it will stop digestion, stimulate the salivary glands, elevate the pulse, throw the heart into violent pulsations, wrinkle the skin, turn the hair gray, suspend the circulation, and even terminate life. Here, disturbance of the vitality evidently is the *cause*, not the *effect*, of the phenomena witnessed. It is *possible*, therefore, for disease to be engendered by the action of the vital principle on the material system, and for that principle to be reached in other ways than through fluids and solids. I confess, however, that it is difficult to conceive how any *material* "morbific" agent can affect this vitality, except through its disturbing action upon the material system; or how any general effect can be produced upon this material system except through the fluids. But whether there are material agents that can or cannot act thus, is not important. It is evident that disease may originate from causes acting on either the fluids, the solids, or the vital principle; and that if the physician adopts any of the theories adverted to, believing it to embrace the whole truth, and rejects all others, he will have only a partial view of the subject, and be led into embarrassing errors, both of philosophy and practice.

I might refer to many other theories and systems, in which the same features are apparent. The hydropathist has his theory, upon which water is the only proper remedial agent for all diseases; the "botanical physician" finds virtue only in vegetable medicines, and rejects absolutely all minerals, under whatever circumstances. One bleeds for every ailment; another never bleeds. One rejects all medicines but cathartics; another as rigidly rejects all cathartics. One cures all diseases by electricity; another holds electricity to be worthless in any case. And so on to the end of the chapter. But without noticing more particularly these various medical eccentricities, which I have noticed at all only to illustrate the peculiarity to which I have adverted, it must, I think, be clear, that this disposition to make a *hobby* of some favorite theory, and discard all others, stands very much in the way of erecting Medicine into such a science as will

challenge the confidence of both physicians and their patients, and justify that confidence by a greater certainty of success.

I shall not, of course, be understood as decrying the importance of true science, and the value of correct theories in Medicine. No man can be a safe and reliable physician, who has not an accurate knowledge of the human frame, in all its parts and all its functions, of all the phenomena of health and disease, as well as of the nature and action of remedies. The wider his range of information, and the larger his acquaintance with the whole circle of sciences, the better. So also the physician should be well established in "sound doctrine." He must not be a *mere* empiric; indeed he cannot be. It is impossible designedly to treat disease at all without a *theory*. No physician administers even a dose of castor-oil without having his theory of its action and of the disease he is prescribing for, upon which he determines that this remedy is the proper one. We *must* have our theories, and in framing them *reason* is called into requisition, to analyze, arrange, classify, and generalize our facts, and deduce our conclusions. The physician must in this respect be a *rationalist*. Indeed, Medicine presents a field in which there is scope for the amplest scholarship, the most scrutinizing observation, and the highest efforts of reason. The physician cannot know too much; and the ignorant pretender, whether shielded by a diploma and having the prestige of "regularity" or not, who rashly tampers with life and health in the use of medical remedies, cannot be too severely condemned or too carefully shunned. But what we may and should demand is, that the true design of Medicine shall be kept constantly in view, and that all science and scholarship, all facts and theories, shall be subordinated to this design; that they shall not be made the basis of a claim by the *physician* to honor and position, only so far as they are made subservient to the *prevention and cure of disease*.

I may be permitted to advert to one other hindrance to the progress of the "Art of Healing" and source of failure to the physician—it is the *fostering of an unteachable spirit*. There are few of us who are not willing to learn, if information comes to us from the *right* quarter. But there are many, very many, who turn proudly away from all sources of information that have not the sanction of some great name. They scorn to be taught by the humble and obscure. They seem to feel it to be a disgrace to confess that any but the *learned* can teach *them*. Such physicians may witness cures that are

really remarkable trimmphs of Medicine, and that are entirely impossible to them; but if accomplished by the ageney of some person who has not a general medical education, and has not secured a *high position*, they pass by such cures with contemptuous indifference, exhibit no desire to learn by what means they have been effected, or perhaps deny utterly the most thoroughly authenticated facts. For example, a patient of one of this class has a cancer, and applies to him for relief. He recommends that it be let entirely alone, to take its own course, and that the sufferer submit patiently to his fate, confessing that he can do nothing for it but to cut it out, and can do this only as a temporary check to the progress of the dreaded disease which he is sure must sooner or later destroy life. The patient lets it alone as advised, until the dissolving tissues begin their purulent discharge, and the poisonous fangs of the disease are seen to be eating their way to a vital part. Just now there appears before him a man who tells him he can "cure cancer." He is, perhaps, a plain, unlettered person, making no pretension to medical skill, claiming no professional attainments or position. He cannot cure a fever nor set a broken leg, but he can *cure a cancer*. The physician curls his lip, and, denouncing "quackery," refuses even to see him. But as a forlorn hope, the poor patient permits him to apply his remedies and make a trial. Suppose he succeeds, the tumor being removed, the wound healed, and the patient restored to health. Now here is a plain, positive cure of a disease which the physician had pronounced incurable, and for which he knew no remedy. He may be infinitely the superior of the "quack" in every other respect, and capable of teaching him his alphabet in all other subjects; in the matter of *curing cancer*, however, the "quack" has most important information, which the physician has not. What does common sense dictate that the physician should do? Obviously, that he should seek out this "cancer doctor," and learn, if possible, what is the ageney by which he conquers this disease. Then, having learned from him all he knows of the matter, apply to the subject the powers of his own better informed and more disciplined mind, and place *cancer curing* on a "scientific" basis. If, instead of this, he turns away in contempt of the "ignorant pretender," perhaps stoutly denying the fact of cure altogether, does he not do himself and the cause of Medicine a real injury? Would he treat thus the announcement that cancer had been cured, if issuing from some high place in the

profession? But is not a fact *a fact*, irrespective of the place where we find it? There are valuable truths that have never yet been printed in books nor uttered from the professor's chair. It is the part of wisdom to gather them up, appropriate them, systematize them, and use them; not to reject them, however humble the source whence they spring. I have put a strong case, but the point it illustrates is the clearer because it is so. The principle has a wide range; and I think I am not incorrect in saying, that the cause of Medicine loses much from pride and an unteachable spirit among physicians.

The reader will not, of course, understand me as countenancing "quackery" and "ignorant pretension" in Medicine. On the contrary, I am advocating the rescue of Medicine from such hands. But this cannot be done by preaching against and denouncing them. We can do it only by curing the diseases of the people, and thus convincing our patients that they are safest in our hands. If "quacks" cure where we fail, the sick will go to them, and we cannot prevent it; and, let me ask, why should we, if they are more successful than we? In truth, we have no right to complain for *ourselves* that the sick abandon us and resort to charlatans. *We have always the first chance.* No patient leaves his physician and goes outside of the "regular practice" for help, until his physician has tried and failed to cure him, or unless that physician's failure has been witnessed in some other similar case. The sick never dismiss their doctor without reluctance and regret. No class have a stronger hold upon the confidence and regard of those for whom they labor, than skilful and successful physicians. "Quacks" thrive upon our failures—when they thrive at all. The way to put them down is to cure our patients; and this is the only way. But if we would do so more certainly and uniformly than "irregular" practitioners, we must not permit ourselves to be ignorant of any true curative remedies of which they are in possession.

It is clearly the duty, as it is the true policy of the physician, to candidly investigate, as far as he can, all systems, theories, and remedies, while he should not permit himself to be the slave of any. He should thoroughly acquaint himself with every branch of science related to medicine and surgery, and with all medicinal agencies and all modes of treatment that are proposed, in all quarters, for the cure of disease. Then, with a bold independence, he should fearlessly adopt and employ whatever his enlightened judgment determines is

most certain to cure his patients, and preserve them in health; and do this, whatever school or sect, or man, or body of men, may condemn or approve the course he pursues. If this were universally done, we should find less skepticism among physicians, and more confidence among the people.

And here I may be permitted to add, what the reader will, most probably, have inferred, that I am not myself embarrassed by any of the unbelief to which I have referred. I am no skeptic; on the contrary, I might more justly be charged with being an enthusiast in Medicine. I have certainly the most unbounded confidence in the curative power of medicinal remedies over the diseases which afflict our race. So, also, I am positive that the phenomena of animal life, of health, and of disease, with the principles which should guide us in the employment of hygienic and remedial agencies, may be systematized and comprehended in a scientific basis, so as to reduce the practice of Medicine to very much of the certainty which belongs to what are known as the *exact sciences*. This is not to say that all disease can, in all conditions, be cured. The human frame may, of course, be brought under the influence of destructive agencies, which must necessarily prove fatal to life, and against which no human art or skill can avail. But it *is* to say that most of the diseases ordinarily considered incurable, are *not* so. There are few of our maladies for which there are not remedies; and we may obtain such a knowledge of these remedies, as well as of the causes of disease, and the manner in which they act, as will give certainty, precision, and success to our practice.

In the preparation of this volume, I have been guided by the principles which lie at the basis of the system of practice pursued by me, and which are indicated in the preceding pages. Acknowledging allegiance to no special school of Medicine, and permitting myself to be fettered by no arbitrary decrees of self-constituted professional censors, I have aimed in my practice to *cure the sick* by the most direct means within my power, not stopping to inquire whether the remedies employed were sanctioned or condemned by "medical authorities." The result of observations thus conducted, and of experience thus acquired, I have endeavored faithfully to record. I have not, of course, disregarded the labors of those who have preceded me. To avoid becoming imitators, it is not necessary that we be ignorant of those held up as models. Availing myself of all possible

help, whether found in science, in the recorded experience and theories of others, or in the daily events of life, I have endeavored to deduce from all the simple truth, and to reach, by the most direct road, the great object of Medicine—the cure of disease and the preservation of health.

It will be observed that in this work I have given special prominence to the *lungs*—the diseases to which they are liable, and the treatment and remedies by which these diseases may be both avoided and cured. This I have done for several reasons, among which I may mention:

(1.) *The great mortality resulting from the various prevailing affections of the lungs.*—Pulmonary consumption, as everybody knows, is the monster malady of Christendom. While it is more prevalent and fatal in some climates than others, it confines its ravages to none. It is circumscribed within no geographical limits, and no class or race escapes it. It sweeps to the grave at least one-sixth of all who die. A disease so wide-spread and so destructive of life, may very well claim a prominent position in a "Treatise upon Health, its Aids and Hindrances." Then, when we add to consumption the other affections to which the respiratory organs are subject, asthma, bronchitis, inflammation, congestion, croup, etc., we see that they must have the first place in such a treatise.

(2.) *The great importance of the lungs in the economy of animal life.*—We all know that if our breath is stopped, even for a few seconds, we die; and yet few are aware how absolutely indispensable to robust, vigorous health it is that we have large, sound lungs. We have been taught that the office of these organs is to purify the blood and supply heat to the system; remove carbonic acid from it, and convey to it the oxygen of the air. But it has been generally overlooked that the most important office of the lungs is to supply, by means of the air inhaled, the *force* which keeps the machinery of our bodies in motion. This is why we die so soon when breathing is suspended. It is not simply because the carbon of the blood is not removed, nor because the heat of the system is abated; but for the reason that the *supply of force*, momentarily essential to every movement and function of the body, is withdrawn. Small, imperfect lungs, and the consequent use of an inadequate amount of air, are liable to induce consumption. But this is not the only evil to be apprehended: though consumption is escaped, there is sure to

be feebleness and disease of some kind. It is absolutely impossible to have vigor and strength and robust health, with small or impaired lungs.

(3.) *The great liability there is that the lungs will take on disease from disorders of the other organs.*—There is scarcely an aberration from health occurring anywhere in the system that may not lay the foundation of disease in the lungs. Consumption is not an affection springing from one, and only one, specific cause. It may be said to be the great centre to which all other diseases tend. It may result as the *sequela* or consequence of almost any other disease to which the human frame is subject. The lungs are in relation at once with all the internal mechanism of the body and the external world, constituting the great theatre of "exchange" between the two, and liable therefore to hurtful influences from both. In this view also, then, they demand the first consideration in a treatise upon health.

(4.) *The prevailing belief that pulmonary consumption is incurable.*—Now, inasmuch as I know this to be a false doctrine, and being so, is most disastrous in its influence upon all efforts that are made to introduce a correct system of treatment for consumption and to establish public confidence in such a treatment, I have deemed it proper to devote considerable space to an exposition of the causes and nature of phthisis, and the remedial agencies found by me effective in its cure; and also, by the presentation of undeniable facts, to refute the fatal doctrine of its incurability.

(5.) *The usefulness of the plan adopted.*—If the foregoing remarks are correct, it is clear that in no way can we contribute more directly and efficiently to the prevention of the prevalent chronic diseases and the promotion of general health, than by directing special attention to the lungs. So far as correct information in regard to the true uses of the lungs, and the causes of the diseases to which they are subject, is diffused, and the mode by which they may be made large and strong, if healthy, and cured if diseased, is made known, most certainly great practical good is accomplished. Not a little of the darkness which enveloped this whole subject when the first edition of my "Six Lectures" was issued, has been dissipated. Still, much of error in theory and mistaken practice remain. The truth cannot be exhibited too clearly nor too frequently. It is especially important that it should be universally known that nearly every disease to which the human frame or any of its parts is liable, may lay the

foundation of lung disease in some form. So, too, feeble or disordered lungs may and often do become the source of a vast brood of chronic maladies, that apparently have no connection with the lungs. Indeed, a person with a broad chest and large, sound lungs, habituated to deep, copious breathing, and who never permits himself to breathe a stifled, vitiated air, can hardly be made sick, except by some great violence. He will resist completely all the ordinary morbific influences by which he may be surrounded; he may walk scathless through the pestilence, and stand unharmed in the midst of the most fatal contagions. We sometimes find men of this description who seem to bear a charmed life. Their tenacity of life and health is wonderful. The secret is to be found in the perfect organization and condition of their respiratory apparatus. They are subject to the action of all the causes of disease to which other men are; but from the greater comparative size and perfection of this apparatus, they are endowed with a higher vitality and greater functional activity—they stand on a more elevated plane of animal life, and have such a power of resistance against any agent or influence which interferes with that life, that they are unharmed where thousands, with smaller and less perfect lungs, fall and die.

Without enumerating other reasons for the plan adopted in presenting the subjects embraced in this treatise, I will say that I have reversed somewhat the order usually pursued in treating of the lungs themselves. I have first explained the method by which the condition of the lungs may be ascertained. It is of the utmost importance that this should be more generally known and practised. One of the great reasons why consumption is so fatal, is because there is, in almost every case, positive and extensive disorganization of the lungs before the patient is aware that they are diseased at all. In its earlier stages, consumption is as curable as any other serious malady; and if when there is experienced any disturbance of the lungs, or of the general health, there should always be made at once an accurate examination of their condition, and the first traces of tuberculation, or catarrh, or humor, or ulceration, or any other form of disease, should be, as they may be, detected, and then promptly treated, tens of thousands of precious lives might be saved that are now sacrificed. I have thought it best, therefore, as I say, to place first before the reader the information necessary to enable him to know at all times the condition in which his lungs are; and I would rec-

ommend him not to pass over this portion of the book, thinking it of no consequence to him.

After describing the best method of examining the condition of the lungs, and the external *signs* of disease that may be presented, I have arranged, under separate heads, the various diseases themselves to which the organs of respiration are subject. Several varieties of pulmonary consumption are noticed, to which names are given indicating in each the origin or proximate cause of the affection. This plan has the advantage of bringing into view the principal number of chronic diseases which afflict us, and at the same time establishing the fact that there are few that may not become the source of consumption of the lungs. The views presented on this subject are commended to the particular attention of the reader. Then follows a consideration of several of the prevalent chronic disorders by themselves, otherwise than as related to any pulmonary affection, with such reflections and suggestions as I have believed most adapted to aid the sick in recovering, and those free from disease in preserving, that great treasure—*health*.

In conclusion, I have only to add that it is my sincere desire that this treatise—which I wish was more perfect, and more adequately answered to the conception I have in my own mind of what such a work should be—may be useful to my fellow-men; that it may do something towards alleviating their diseases and sufferings, promoting their health and happiness, and prolonging their lives. While my own life and health continue, my services are at all times at their command, either to give such explanations as I may be able to give of any matter embraced in this book, where I have not made myself understood, and to aid the invalid by counsel and remedies; and, so far as it is in my power, to point out, to both the invalid who would escape from his suffering, and to him who rejoicing in the possession of vigor and strength would retain them, the pleasant road in which health and length of days may be found.

HEALTH:

ITS AIDS AND HINDRANCES.

CHAPTER I.

EXAMINATION OF THE CHEST.

METHODS OF ASCERTAINING THE CONDITION OF THE LUNGS.

As the lungs are the very citadel of animal life, through whose agency are derived the power, the vigor, the vitality of the whole body and all its parts, determining very much the state of the general health; and as disease of these organs is so common and so fatal, it is exceedingly important that the physician should possess some mode of ascertaining at any time, with the utmost possible certainty, their true state; whether they are diseased or not; if diseased, what the precise nature of the disorder is,—its progress and the extent of its ravages; whether both lungs are affected, or only one; whether one or more of their lobes is diseased; the exact location of the disorder:—in a word, of ascertaining the true pathological condition of the lungs, throat, and air-passages. A knowledge of such a mode is also important to others besides physicians; as those who possess it are able to determine for themselves whether or not disease exists in the lungs of their friends, when it is suspected. If the correct manner of examining the chest were generally known, thousands might be saved who now die of consumption, which creeps stealthily upon its victim, and perhaps nearly destroys the lungs before it is known to exist.

The physician, it is true, may learn much concerning the condition of the lungs from the history of any case presented to him, from the duration of the disease, the appearance of the patient, the presence or absence of cough, bleeding, expectoration, &c.; and also

from the manner of breathing, as the patient sits on his chair, or reclines on his couch,—whether or not it is difficult, short, or hurried. But although these circumstances are all very valuable in determining the condition of the lungs, and may thoroughly justify the inference, in many cases, that the lungs are diseased, yet they cannot absolutely establish the fact. The only mode of reaching certainty here, is by a careful examination of the chest itself, through the sounds given out by the lungs in breathing.

I propose here to give some directions for making this examination. They will be mainly addressed to young physicians, not yet acquainted with the best mode of examining the chest, and also to the general reader. The physician qualified by experience to conduct this examination, of course needs no instruction.

Allow me to observe that the air, in passing into the lungs through the bronchial tubes and the smaller air-passages, to and from the air-cells, makes a peculiar sound; and this sound differs even in perfectly healthy subjects, according to their age. In the lungs of a child it differs from those of the man, and in the young and middle-aged from the aged.

Now, the first step to take in arriving at a correct knowledge of Auscultation—as the examination of the lungs, by means of these sounds, is called—is to obtain a clear and perfect knowledge of the sounds emitted, in respiration, by healthy lungs. It is a common and almost universal error of those teaching medical treatment, or forming the medical mind, that they, in nearly all cases, commence at the point of disease, when they should begin at the point of health. No person can be truly and thoroughly prepared to investigate disease, until he is perfectly acquainted with the phenomena of health in all its circumstances and conditions. From this standpoint alone can he see disease in its true nature, as a deviation from health. Almost all medical students are introduced to a study of the human system first, under abnormal conditions; not in the natural state, which is that of health, but in a diseased state, which is an unnatural one. The diseased chest, for instance, is examined before the true phenomena of the healthy chest is known; and while they see many varieties of disease, each differing in appearance from the others, they all differ from health.

As the first step, therefore, I would advise the student of medicine, or any person wishing to acquire the art of examining the

chest, to learn the exact sounds produced from the lungs of healthy persons. Let the student and the young physician commence by examining the chests of healthy persons, both male and female, and of all ages; and let him do it repeatedly, until he has examined a great number. Let him be in the habit of examining the chests of all those who consult him for any disease, as far as the complacency of the patient will permit. He will find that even a few weeks' practice will give him a very clear perception of all the sounds proceeding from healthy lungs, and thus he will be qualified to detect any deviation from health.

Another cause of obscurity and want of success in practising auscultation, arises from the terms employed to designate unhealthy sounds. Laennec, the great French physician, who first discovered or noticed the sounds produced from diseased lungs, employed a set of terms to designate these sounds, derived from the French, Latin, and Greek languages, and they have been adopted by all subsequent English writers. I do not know of one English author who employs English words alone to designate these sounds; and while the foreign words fall pleasantly upon the ear of those familiar with the languages from which they are derived, they convey but little or no meaning to others. In the following description I shall avoid adopting foreign terms, and give the best idea I can of these sounds through the medium of English words.

MODES EMPLOYED TO ASCERTAIN THE CONDITION OF THE LUNGS BY THEIR SOUNDS.

Physicians, in examining the chest, have adopted two methods to determine by sound the condition of the lungs. The first is called Percussion, and the second is called Auscultation.

Percussion consists in pounding upon the chest, and noting the character of the sounds produced by the blows. It has been extensively adopted, and is at this time practised by some eminent physicians both in Europe and in this country.

For my own part, however, I look upon percussion as being a very uncertain method of determining the state of the lungs; for in many subjects the walls of the chest may be loaded with fat, or there may be a relaxed condition of the muscular coating of the chest. In these cases, percussion necessarily gives a dull sound, when the lungs be-

neath may be perfectly free from disease. So, also, blows on the thick muscles of the back, on the scapulæ or shoulder-blades, and in the mammary regions of most females, give but dull sounds, independent of the condition of the lungs. Besides, there are various conditions of these organs, in which extreme dulness of sound, on percussion, will be perceived, indicating disease of some kind, but in which it cannot be determined by this mode whether the lungs are tuberculated, hepatized, or highly congested, as in all these conditions they emit a dull sound when under percussion. Effusion and collections of pus may be present, and give dulness to the sounds of the chest, and yet percussion alone will not reveal these different states. This practice has, moreover, the objection that it is unpleasant, and sometimes even painful to the patient.

It is but lately that I was consulted by a young gentleman recently from Europe, who had been examined by an eminent and world-renowned professor in Vienna, by whom the condition of the lungs is determined principally, if not entirely, by percussion. Mallet in hand, he passes hours each day in examinations of the chest. But in this case he did not, so far as he declared it, reveal the true state of the patient's lungs by his percussion.

I feel confident that, in very many instances, percussion alone will lead to very serious mistakes, even when employed by the most skilful, erudite, and experienced practitioners. Consequently, I never rely upon this mode of examining the chest. All the advantages it possesses are, with none of its objections, found in auscultation. I do not consider it worthy of any confidence compared with the latter mode of examination. If there are those whose experience and judgment lead them to recommend percussion as valuable and safe, their experience and judgment differ from my own.

Auscultation.—This is a mode of determining the condition of the lungs by their sounds, directed immediately upon the ear. It is the true and proper mode of examining the chest, to obtain a clear, practical, and correct knowledge of all the sounds produced in the chest during respiration, at every age of the patient. If, in the first place, you accurately learn, by this mode of examination, the sounds made by the lungs when in health, then those indicating disease will be most promptly detected by the ear thus cultivated.

Auscultation is practised in two modes; one is called *immediate*, and the other *mediate auscultation*. The first is placing the ear di-

rectly in contact with the chest itself; and the other is through the medium of an instrument intended to be a sort of ear-trumpet, and is called the *stethoscope.*

This instrument was invented by Laennec, but has received a number of modifications since its invention. It has been very generally and extensively used by physicians, and especially by those who are not acquainted with the sounds characteristic of either healthy or unhealthy lungs. It has been employed by thousands of physicians who have had no knowledge on the subject of what sounds they were to expect as indicating either health or disease. Indeed, some simple-minded physicians would seem to suppose that there is a property in the instrument itself—some mysterious power—by which it gives to the physician exact information of the true state of the lungs. But if it fails in this, there is one thing that it never fails to do, and that is to profoundly impress the patient and the beholder with the idea that this instrument will tell all about what is the matter with their lungs. If the physician, after applying this instrument to the chest, says that the lungs are diseased, it cannot for one moment be doubted that this pulmonary index has pointed out the malady as exactly as the hands of a clock indicate the hour of the day. For the purpose of impressing patients and their friends with the profound knowledge of the physician, the stethoscope has been employed in thousands and tens of thousands of cases, I have no doubt.

The stethoscope may in some hands be convenient, and perhaps useful; but, for myself, I have always looked upon it, as ordinarily used, as embodying a great deal of quackery, as liable to lead to wrong conclusions, and as in no way enlarging or concentrating the sounds, so as to be in itself of any practical benefit. I consider that a good ear can never derive any assistance from an ear-trumpet in exploring the lungs, and does not require or call for it. I therefore prefer to apply the ear itself directly to the walls of the chest; and in this view I am fully sustained by some of the best practitioners in Europe and in this country. Many of those who commenced practice with the use of the stethoscope, have long since laid it aside as useless and cumbersome. Their extensive practice, their experience and reputation, having given them celebrity and the confidence of the public, they have found themselves strong enough to discard all show and imposition of consequence derived from the use of this instrument.

They have found, too, that when the ear is applied directly to the chest, they are far less liable to be mistaken, and do not alarm the patient. Besides, the physician *usually* has his ears with him. He is not obliged, from any forgetfulness, therefore, to return home for his examining instrument, before his anxious patient can have his doubtful fate determined.

MANNER OF EXAMINING THE CHEST.

Placing the patient in a chair, uncover the chest in front, and lay it bare nearly to the nipples, and with slight covering over the other parts. Now ask the patient to inhale a long, full breath, so as slowly, fully, and deeply to fill and expand the whole lungs. Then let him exhale or breathe out the air, and fill the chest again in the same way. Two or three repetitions in this way will clearly inform you whether the chest rises fully and equally in all parts; whether the walls of the chest are flexible or rigid; whether there are any depressions in any part; and, if these depressions exist, whether they are slight or extensive. This will give you a clear idea of the state of the chest and lungs, as far as can be determined by the eye. Upon parts that are covered, you can place the hand, and notice if they rise equally, and are flexible and free. Should you observe that, in the exercise of breathing, one lung, or the walls covering one lung, rises much more than the other; or should you observe depressions, that portions of the ribs do not rise at all, and that the intercostal muscles and parts occupying the space between the ribs, do not rise, then you have great reason to suspect disease at that spot. Or if you should notice a portion of the chest depressed, and the ribs almost immovable on inhaling the air; and if, at the same time, you observe one circumscribed spot rise freely out of this extensive depression, you have great reason to suspect a large cavity there. At the same time you will notice whether the chest is emaciated, flat, small, thin, or stooping; whether the shoulders fall gracefully back from the chest, or whether they come forward, narrowing the chest in front. All these conditions the eye will readily embrace, and the inquiring mind will notice them as highly important in diagnosis of disease, and also in determining the probability of its cure; for we should remember that small lungs cannot bear disease to the extent that large lungs may. We can

notice, also, all the advantages to the possessor from having a large, round, well-developed chest; and the disadvantages arising from the narrow, small, stooping, contracted chest. A few weeks of observation will give to the medical student and inquirer the most exalted appreciation of a fine, noble bust, and fully confirm in his own mind what I have said in praise of its value. By what I have said, and by a thousand suggestions of his own, he will always be able to estimate these differences in the constitution and formation of the chest.

Having completed the examination by the eye and touch, as above indicated, we are prepared to proceed to explore the lungs by auscultation. While the patient is still in the sitting posture, with the chest uncovered, apply the ear to the upper part of the right side of the chest in front, and follow the line of sound to the bottom of the lung. Then pass the ear over the left lung in the same way, noting carefully the normal and abnormal sounds, as indicating health or disease. Now request the patient to stand upon his feet, and, placing the ear near to the arm-pit, carry it down to the base of the lung in that region. Do this on both sides. Then place the ear upon the base of the throat, and notice the sound in the larynx and windpipe. Now apply the ear to the top of the posterior part of the chest—first on one side of the spine, then on the other, and follow the line of sound, by repeated observation, to the base of the lung along the back. This done, place the ear upon the shoulder-blades, and receive the sound directly through them. In a great many instances the sound comes clearly, and apparently unobstructed, through the scapula or shoulder-blade. During this examination have the patient breathe forcibly, cough, and utter vocal sounds, in order to thoroughly explore every part. In all cases, while examining the front lobe of the left lung, apply the ear over the heart, and determine as nearly as possible its true condition by the sound made as the blood rushes in and out of it. The examination is now complete. The physician should make a record in all cases.

SOUNDS REVEALED TO THE EAR, UPON ITS APPLICATION TO THE CHEST, BY RESPIRATION, WHEN THE LUNGS ARE IN A STATE OF HEALTH.

It is exceedingly difficult to describe sounds by words. The notes of the octave may be perfectly familiar to the ear, and yet who can

describe them, so as to be in any degree intelligible to those unacquainted with musical sounds. I will, however, make the attempt to convey an idea of the peculiar sounds made by the lungs in respiration. But in doing so I must ask, in advance, the utmost indulgence, both of the professional and general reader; for probably almost any experienced person could as well describe these sounds as myself.

SOUNDS EMITTED WHILE INHALING THE AIR INTO HEALTHY LUNGS.

In lungs which are healthy, and have never been diseased, on inspiration the air rushes into them in a full, round, unbroken volume —giving to the ear the impression of quantity, compression, and expansion; and the sound produced has very much the character of that made by air passing through the thick foliage of a tree, only softer, and of course reduced in quantity. It is a species of roar, but gentle and diminished, so that it can only be heard by placing the ear directly on the chest. It is a smooth *bass* sound—smoother and softer in females than males. It also differs very much in individuals of both sexes. When the life and vitality of the chest are great, and the lungs are endowed with full strength, the sound becomes much more *bass*, amounting almost to hoarseness; and if the lungs are very large and strong, while the chest is fragile and its walls thin, so bass or hoarse is the sound that we might almost suspect thickening of the internal membrane, unless other circumstances were noted. The term *murmur*, ordinarily used, may be more graceful than that of *roar;* but I think the latter word conveys a more correct idea, and is more descriptive of the true sound than any other English word.

This description gives as clear an idea of the sound made by healthy lungs in respiration, as I can convey by words. It possesses quantity, volume, force, and smoothness; and it is uninterrupted, unbroken, and equal over the whole lungs. A fine life in the chest is indicated by the volume, quantity, and smoothness of this sound; and they will be increased or diminished, according to the increased or diminished size, vitality, and flexibility of the chest. In no state of disease whatever do the lungs present the same tone or volume of sound as when the whole system is in a state of health, notwithstanding the assertion of some hasty writers to the contrary. It

should be remembered that what has here been said, refers to the sound made by inspiring the air.

Allow me to remark, that all sounds from respiration, of whatever description, kind, or variety, and however different in intonation, arise from resistance of the partially collapsed lung to the ingress of air, and the friction of the air against the walls of the air-tubes and cells. On applying the ear to the chest, we perceive the air come rushing in. It rushes through the larynx, trachea, and bronchi, unfolding and expanding the lungs, until it fills the most minute air-cells, when the sound is a fine, smooth, gentle, and distinct roar. As I have before remarked, it is a bass, muffled tone, in the full-grown, healthy man. It is less so in females. In children the sound is full, distinct, and clear, owing to their activity and health, but less bass than in adults. In old age it is comparatively feeble and dull. Thus it differs in quantity, volume, and intensity, or strength, at different ages. When in health, the larynx, the trachea, the bronchial tubes, and air-cells, in all their ramifications and extremest points, are filled with a measure of unbroken sound.

A few weeks of practice by the ear, will give to any investigating mind a clear, full, and familiar acquaintance with the sounds produced by inspiring the air into healthy lungs, of whatever age or strength the subject may be. I would particularly advise the learner not to trust to any description; but to educate the ear to a clear perception of the healthy sounds, by exploring the chests of healthy persons, of both sexes and of all ages.

SOUNDS PRODUCED BY EXPIRATION IN HEALTHY LUNGS.

After the air has filled the lungs, and the inspiration is complete, it rests an instant, and then commences its return; and as it necessarily meets little resistance, the sounds produced by its return are the same in character as those made by respiration, but vastly diminished in quantity and force; so that in some persons the expiratory murmur is hardly heard at all. In this free expiration of the air, and the consequent absence of sound, is found important evidence that the lungs are in health.

SOUNDS INDICATING DISEASE.

I beg you to bear in mind that sound can never be produced unless the air meets with resistance.

There are several primitive sounds that take place in diseased lungs. One of these sounds, often recognized, may be counterfeited by throwing a little fine salt upon a blazing fire, by which a kind of crackling is produced, known to chemists under the term *crepitation*. It may be so fine as to indicate to the ear that it proceeds from a multitude of small points; or it may be coarser, and seem to proceed from a broader base, and from fewer points. This sound, as I have said, is called crepitus, or crepitation. It is produced in the lungs by the bursting of minute air-bubbles in the air-cells and tubes. It occurs where there has been, from any cause, an increase of the secretion from the membrane lining these tubes and cells. When the air is brought into forcible contact with this secretion, the fluid is agitated, and bubbles are formed and exploded. The bubbles are necessarily very minute; and the bursting of great numbers of them causes a crackling sound. This crepitation, or crackling, during respiration, indicates increased secretion in the lungs, but does not disclose its cause.

There is a sound, frequently heard in diseased lungs, which may be imitated by sucking the tongue upon the roof of the mouth, and then withdrawing it suddenly, by which a humid clapping sound is produced, and this will be more or less extensive as the surface of the tongue is more or less extensively applied to the roof of the mouth. This sound I call *clapping*.

Another sound, which is often heard, may be reproduced very nearly by rapidly beating thick fluid with a spoon, or blowing into it so as to agitate it; or it is like that of gurgling in the throat. This is a true primitive sound, frequently heard in diseased lungs, and is called *gurgling*.

There is a sound which comes under our notice in the lungs, that is similar in its character to air rushing into a closed, narrow-mouthed, empty vessel. It may be imitated by blowing air into a vial or flask—blowing it down upon one side of the aperture, and allowing it to rush out upon the opposite side. This is called the *cavernous* sound. In some cases this cavernous respiration, which indicates

the existence of a cavity in the lungs, becomes peculiarly clear and ringing. It occurs when the cavity is very large, with thin and elastic walls. This modification of the cavernous sound is termed by physicians *amphoric* respiration, derived from the Latin word *amphora*, signifying a flask, or hollow vessel.

Another sound heard at times in diseased lungs, may be imitated by taking an ordinary oil-lamp, partly filled with oil, and shaking it gently. The oil will break from side to side in the lamp, and give you a very correct idea of this pulmonary sound. I take the liberty to call it the *bottled-fluid* sound.

There is still another set of sounds heard in diseased lungs, often noticed, that are in their character somewhat musical. These sounds are like the flute, the cooing of birds, or an exceedingly gentle screaming. They have various intonations, and differ in quantity, yet all have the same general characteristics, and all proceed from the same cause, and that is, obstructions in the air-tubes,—the lining membranes become thickened and roughened, and thus the passages partially closed; or a thick secretion takes place in them, adhering to the internal surface, and the air rushes through with a whistling sound. These sounds are dry, and convey no liquid impression to the ear.

There is another class of sounds that are extremely analogous to the whistling, but which do not break into musical notes,—the obstructions that produce them not being so sharp, but are more extensive. They are humid in their character, and are called *wheezing;* they indicate extensive thickening of the air-passages, accompanied at the same time with more or less humid secretion.

In the whistling sound it would seem that the air-pipe is entirely encircled with a sharp thickening. But in wheezing, the obstruction does not, to so great an extent, fill the air-pipe, and extends over a greater surface. The sound produced is not therefore that of shrill musical notes, but only a deep hoarseness, broken by the presence of a humid mucous secretion, in slight quantity, adherent to the sides of the tube. In the absence of these mucous secretions, this sound becomes deeply hoarse. When very much increased, we have a true wheezing sound, which is a grade of sound between hoarseness and gurgling.

What is commonly called *hoarseness*, is another sound. This relates to the voice. It is of so frequent occurrence, and so familiar to

all, that I need not describe it. It is a peculiar modification of the voice, caused in the larynx by a thickening of what is called the vocal chord, by whose vibrations, as the air passes over it, vocal sound is produced. When thus thickened and relaxed, this chord vibrates less freely, and makes, in consequence, a less pure and perfect sound.

In the early stages of bronchitis and asthmatic phthisis, in asthma and catarrhal phthisis, the whistling and wheezing sounds pass up and down, along, and in the course of the air-pipes, to and from the throat, at the parts affected. But in tubercular consumption, during tuberculous softenings and in cases of abscesses, the sounds indicating disease often cross the chest, occupy a much wider space, and you can follow them across the chest. They exist over extensive surfaces, laterally in the chest, especially in the early stages of the disease, instead of extending down the lungs in narrow lines, as when the air-tubes only are affected. When the trachea or windpipe only is affected, of course the sound will be no wider than the tube itself.

There is still another sound produced in the chest, which I have often noticed as occurring after bleeding, and sometimes before bleeding has taken place. It is a species of ticking or clicking, sometimes distinctly audible to the patient, when it is extremely annoying. Hour after hour, like a death-watch, it sounds in his ear, preventing sleep and rest, and is in all respects disagreeable and wearying. Its seat is near the top of the lungs. I have noticed it oftener in the top of the right lung than the left.

SOUNDS IN BRONCHITIS.

The sounds in breathing which indicate this disease, are first simply a huskiness of the voice. Upon applying the ear to the chest, the sound seems thickened. As the disease advances, we find that the volume of air has lost its smoothness; that it is broken, as if passing over a roughened surface, producing more or less hoarseness, as the disease is more or less violent and extensive. The membrane lining the tube has become thickened, and the effect of this thickening is to render these otherwise smooth surfaces, rough. In proportion to this roughness on the surface, will the impression of roughness or hoarseness be produced in the current of air passing over the sur-

face. As the disease still advances, and the humid secretions increase, the obstructions in the air-passages, produced by the thickening of the membrane and the secretions adhering to it, increase in quantity, there will then be produced a gurgling or rattling sound. This is noticed particularly in the bronchitis of children—in their winter coughs and colds. We observe in many of them large discharges of mucus from the nostrils; and when they cough, as the air forces its way through and across the deposits of mucus, and portions of the thickened mucous membrane on which the mucus has been secreted, this rattling sound is produced, which indicates genuine humid catarrh or bronchitis of the throat, air-passages, air-surfaces, &c. In other instances, the humid secretions will not take place, except to a small extent, and irregularly; and then we observe more or less of whistling, emitted from the affected part.

Another sound occurs in bronchitis, which may be counterfeited by wetting the ball of the thumb, and passing it over a polished surface, under proper conditions, as the thumb is passed across a tambourine. The sound is sometimes very loud.

In a great many instances in bronchitis, or skin disease upon the lungs, large quantities of matter, resembling pus, as well as mucus, are secreted, and that without the formation of ulcers. In many of these cases the air-surfaces adhere together; and the air, in making its way along the air-passage, will force them apart, producing a clapping noise, such as I have previously described as analogous to the sound produced by the tongue adhering to the roof of the mouth, and drawn suddenly from it.

These are all the sounds that I now choose to notice as indicating bronchitis,—they are hoarseness, wheezing, gurgling, clapping, and whistling.

When we observe one or all of these sounds, and notice at the same time that the chest rises well, that the lungs expand readily and fully, and that the expiration is easy and free, we may be certain that it is a case of bronchitis. But we must never forget that this state of the disease may exist upon some portions of the lungs and air-passages, whilst other portions may be affected with another form of pulmonary disease.

Hoarseness, the tambourine sound, wheezing, and the whistling musical sound, in any part of the lungs or air-surfaces, are peculiar to bronchitis, and unfailingly indicate it in that particular spot; but

gurgling and clapping are not peculiar to bronchitis. They occur also in other forms of disease.

SOUNDS INDICATING ASTHMA.

In the early stages of acute attacks of asthma, we notice intense hoarseness and shrill whistling, occupying almost the entire lungs in some subjects; less so in others, in proportion as the disease is more or less extensive.

As the asthmatic paroxysm advances, and secretion commences, the hoarseness changes more or less—a humid whistling intervenes, and the shrill whistling sound subsides; all the sounds become less dry, and, in many cases, a rattling is heard over the entire lungs. This diminishes and passes off as the secretion declines, as it generally does at the close of the attack.

In asthma, along with the sounds we have indicated, we observe, usually, that the chest is fully expanded, even unnaturally so in some cases. We also notice great shortness of breath, especially in exercise, which is increased on lying down, sometimes almost to suffocation; also the recurrence of paroxysms or exacerbations of short and difficult breathing. By these symptoms the disease is readily distinguished from bronchitis or permanent congestion of the lungs. The indications in asthma differ from those in bronchitis and ulcerated lungs, in that we hear no clapping sounds in the former, whilst in the latter the clapping sound frequently occurs, particularly in its advanced stages. Asthma, when it advances into asthmatic consumption, as it sometimes does, loses most of its asthmatic characteristics, and assumes nearly all the marks of true bronchial tubercular consumption.

In cases where asthma has become permanently established, we generally notice hoarseness, wheezing, and whistling, more or less extensive, in proportion to the violence or extent of the disease. These sounds are usually more intense at night-fall than in early morning, in damp than in dry weather. We should, however, remember that this asthma may be only partial—occupying one lobe of the lung, while the opposite lung, and even another lobe of the same lung, may be tuberculated or ulcerated. Hence the expansion of the chest may be general or partial, as the asthma is general or partial. In some subjects, life is so low that expansion

will be but slight even where the whole lungs become invaded by asthma.

EMPHYSEMA OF THE LUNGS.

Sometimes a number of air-cells become unnaturally expanded, and even break into each other. This state is called emphysema. In these cases the lungs are permanently expanded, and the murmur of air in the emphysematous lung is dull and feeble. It is here that percussion reveals full resonance, and, without auscultation, will indicate healthy lungs. Extensive emphysema of the lungs produces almost as great shortness of breath as takes place in asthma. This form of disease is strictly antagonistic to pulmonary consumption; emphysematous portions of the lungs resisting the process of tuberculation.

SOUNDS INDICATING PULMONARY TUBERCULAR CONSUMPTION.

Tubercles generally occur in the least movable portions of the lungs, which are usually the front lobes, just below the clavicle, or collar-bone. The inactivity of the lung at this point is probably greater in the right than in the left lung, and tuberculation is more often observed to commence there than at any other part; at least, such has been my observation. I have stated, when speaking of the expiratory murmur, or the sound produced on exhaling the air from the lungs, that where the lungs are free and healthy, we will observe very little sound, and sometimes none at all. But if obstructions occur in any part, the air, in passing out over these obstructions, will be partially interrupted, and sound produced. A loud expiratory murmur, with an apparent delay of the air in passing out, unmistakably indicates obstruction, which will almost always be found to be of a tuberculous character; so that the examiner who notices a feeble sound on inspiration, and a distinct expiratory murmur, with more or less roughness of sound, approaching hoarseness, while at the same time the air, in passing out, is somewhat delayed, is fully justified in announcing the presence of tubercles. If, united to this, you observe hoarseness on inspiration, you may infer that the tuberculous region is in a state of excitement, or that there is inflammation around the tuberculous deposits.

SOUNDS PRODUCED BY TUBERCLES IN A STATE OF SOFTENING.

As softenings commence in the tuberculous deposits, the air, upon entering the lungs and passing through this portion, besides the others we have noticed, will produce a clapping sound; the points of sound being finer or broader, as the extent of the softening is greater or less. In some cases you will find extensive portions of the lungs embraced in these softenings; and the air, in passing across these collapsed surfaces, and opening them, will seem to expose a large surface, and a clapping, squashy, humid sound is heard. This, taken in connection with the fact that the chest does not, upon inspiration, rise much at this point, justifies us in concluding that the lung here is ulcerated, and its substance, in some degree, destroyed. In some cases where much loss of substance has taken place, we shall notice points where no sound is heard, and sometimes a catching, interrupted sound, as the air seems to rush from one diseased surface to another, across an open cavity. If, with this sound, you observe that the ribs do not rise, you may be very certain that the lung is much wasted; that tuberculous softenings have taken place, and produced considerable destruction of the substance of the lungs themselves.

SOUNDS INDICATING THE PRESENCE OF ACCUMULATED PUS IN LARGE CAVITIES.

In connection with other symptoms which have been mentioned, you may, in some cases, catch the *bottled-fluid* sound; by which I mean the sound I have described as counterfeited by the fluctuations, from side to side, of oil in a lamp. As the patient changes his position, or the air rushes in and out, the surface of any accumulated fluid, as pus, will be acted upon, and dashed from side to side, producing that peculiar sound to which I have referred, and clearly indicating cavities more or less filled with pus.

SOUNDS INDICATING PULMONARY EXCAVATIONS NOT FILLED WITH PUS.

The air, upon inspiration and expiration, as it enters and returns from a pulmonary excavation not filled with pus, will give a dry cav-

ernous or amphoric sound, which I have described as counterfeited by blowing air into the open mouth of a vial. If, however, the cavity is partially filled, a clapping or gurgling sound will also be observed.

SOUNDS REVEALED BY AUSCULTATION IN INFLAMMATION OF THE LUNGS.

In inflammation of the lungs, whether general or partial, on examination we find diminished motion of the chest in breathing. This is not perceived, to any very considerable extent, in the first stage of the inflammation; but, as this disease progresses, and the lungs become filled with blood, it is noticed more. On applying the ear to the chest, there will be heard, over the points of inflammation, a fine crepitation, as of the bursting of numerous small air-bubbles. This sign is invariably found in this disease. With it there will be heard often a kind of *catching* sound, as the air passes in and out of the lungs. At first, unless the inflammation is extensive, and the lungs are greatly engorged with blood, the respiratory murmur will be heard nearly as full and distinct as in health. But as the disease advances, and the lungs become what is termed *hepatized*, the sound diminishes, becomes more and more feeble and dull, and then at the hepatized points ceases to be heard at all, and gives place to a distinct bronchial murmur, at first. But this latter, as the hepatization becomes more complete, is itself lost, and no sound is heard. If the disease does not become fatal, but subsides, as it does so, there is first heard a return of the crepitation, but of a coarser character, and more of a rattle. This increases for a time; and then, as the lungs are unloaded and become clear, it disappears.

RESUMÉ OF THE SUBJECT OF SOUND, AND THE MANNER OF EXPLORING THE LUNGS IN A STATE OF DISEASE.

I have now summarily described the principal sounds and their indications of disease, as well as words will enable me to do so. I would remark further, that every possible form and complication of these sounds will be discovered in exploring many chests. But there are certain cardinal points that I have mentioned, which never fail us, and which indicate invariably the state of the lungs. Externally, if we find portions of the chest depressed or flattened, and at

those points the ribs rigid and immovable; and if, on applying the ear to such parts, we observe obstructed expiration, a clapping, squeaking, gurgling, amphoric, and bottled-fluid sound, we may be certain of the presence of softened tubercles, or disorganized and ulcerated lungs. In some instances the sounds are all dry; the patient has no cough, and very little, if any, air passes into certain portions of the lungs. There are cases where the lung has once been impaired by disease or accident, and recovered so as to be healed. The diseased secretions are suspended, but the lungs have not recovered their expansibility and elasticity. Many of the air-cells, and perhaps the air-tubes, have become obliterated, and the lungs have lost more or less of their substance, but the process of tuberculation has ceased.

In conducting our examination of the lungs, we should notice not only the sounds discovered by auscultation, but also the general appearance of the chest—the play of the ribs—the fulness or the depressed state of the chest, whether general or partial. So also we should make ourselves fully acquainted with the past history of the case we may be examining, and carefully note and consider the present general condition, and constitutional symptoms. All these circumstances should be taken into consideration; for if the sounds are wholly relied upon, without regard to any other indications, we may be led into hurtful mistakes.

The assistance of a competent teacher, who can point out the states of disease and health, as indicated both by auscultation and general symptoms, together with the opportunity of examining suitable subjects, will of course greatly facilitate the acquiring of a correct knowledge of the interesting phenomena presented in this branch of practice. Still, continued practice and observation—a careful noting of the different sounds, collating the history of each case, and observing the subsequent progress and termination of the disease, will soon make almost any person, possessing a good ear and fair mental capacity, a master of all the prominent and useful facts revealed by auscultation.

POSITION OF THE PATIENT, WITH DISEASED LUNGS, ON LYING DOWN.

As a general rule, the consumptive patient cannot lie upon the diseased side. On first lying down and turning upon the side affected, coughing is immediately induced, which will in some subjects con-

tinue until they turn to the opposite side. If the lungs are ulcerated, a considerable amount of matter will be expectorated during this coughing. After the diseased lung has been well cleared, by coughing, of the matter collected in it, the patient may lie on the affected side for some time, without much inconvenience, if he lie perfectly quiet; but on moving he will immediately commence coughing again; and thus experience and necessity will teach him, that if he will avoid coughing, he must lie on the healthy side. Where both lungs are affected, he can, in some instances, only lie upon his back; in others, he can lie equally well on either side. In cases where water is extensively effused into the pleura of both lungs, as in dropsy in the chest, he cannot lie down at all; and this is also noticed in many asthmatics during the asthmatic paroxysms. But the history of the case, and auscultation, will very soon disclose whether water in the pleura, or asthma, be present. In some comparatively rare cases, the lungs will be loaded with a great amount of watery phlegm and pus, and the patient will be unable to lie down; or, on first doing so, especially, he will be taken with great shortness of breath, and with severe coughing; but after a while the lungs accommodate themselves to the position, and he may sleep some hours uninterruptedly.

I have seen it remarked by at least one writer on consumption, that where there is disease of the lungs, the patient can lie best on the affected side. But this, as a general rule, is a great mistake. Indeed, in many cases, he cannot lie on the affected side at all. I have, it is true, met with a few instances where this rule did not hold good—the invalid being able to lie on one side apparently as well as on the other. But such instances are comparatively rare. They may be accounted for, when they do occur, by the fact, probably, that the healthy lung is in an irritable state, while there is at no time any very great amount of matter accumulated in the diseased lung. The rule that the patient lies best on the side of the sound lung is so uniform, that his disposition to lie on one or the other becomes a fact of considerable importance, in connection with other symptoms, as indicating the location of the disease.

IMPORTANCE OF AN ERECT FIGURE, AND A FULL, EXPANDED CHEST.

Many persons, from extreme weakness at the pit of the stomach, or of the lungs themselves, are unable to stand erect, and imme-

diately stoop upon rising. They imagine they feel better by stooping and bending forward, whether standing or sitting. This habit, if indulged in, rapidly contracts the chest. It throws the shoulders forward, so that the chest has to bear their direct weight, and that of the arms, pressing it downward and forward, of course contracting it, and preventing its full expansion. In the natural arrangement of the human frame, the weight of the shoulders and arms is made to fall backward, leaving the chest free, flexible, and capable of the fullest expansion.

In the prevention of pulmonary consumption, there is no fact of more importance than that the chest should be erect, the lungs perfectly inflated, and the weight of the shoulders made constantly to tend backwards, thus assisting the full and perfect expansion of the chest. This course will do very much towards forming good lungs, and continuing them in a healthy state.

MECHANICAL REMEDIES TO PREVENT STOOPING.

From remarking upon the great importance of keeping the chest erect, and the necessity of throwing the weight of the shoulders off from it, I am led to refer to the use of mechanical remedies to prevent stooping.

These mechanical remedies are known under the name of *shoulder-braces* or trammels. The effect of a good shoulder-brace is to draw the shoulders downward and backward, bringing the shoulder-blades flat upon the back of the chest and keeping them there, so as to take their weight off the chest, and thus to expand instead of contract it.

Any person, however inclined to stoop, if under fifty years of age, can, by a determination of the will, and a proper use of shoulder-braces, do much towards remedying this bad habit, and producing a symmetrical chest.

To me, I believe, belongs the credit, if any credit is due, of introducing shoulder-braces as an assistant in the prevention and cure of pulmonary consumption. When I first commenced my lectures in this country, in 1842, shoulder-braces were almost entirely unknown. Very rude attempts had been made, and rude instruments devised, for improving the figure of the chests of young persons at school; but I am not aware that they were employed, to any considerable

extent, either in this country or in Europe, as a remedial agent, until I brought them into notice, and perfected several varieties of them. They were entirely unknown to the general mass of the people, and to almost all physicians. They are now manufactured in a great variety of styles, and of various grades of usefulness and elegance. In 1842, probably not twenty pair were manufactured a year in the United States: at this day the number manufactured and sold amounts to several hundred thousand annually.

When properly made and adjusted to the size and condition of the patient, there is no remedy of so simple a character, capable of more unalloyed usefulness, or that so much improves the patient, without presenting a single drawback to its benefits. They never produce any injury. On first being worn, the patient may experience a little inconvenience if they are drawn too tightly; but they may be easily adjusted so as to avoid this inconvenience: habit will soon render their use agreeable, and the shoulders will gradually be brought back to their most perfect original symmetry. In young persons the collar-bone may be straightened, where it is bent and deformed, and restored to its natural position and shape; and the elevated, wing-like protruding of the interior edges of the shoulder-blades may be completely remedied; when beauty will take the place of deformity, and health be insured and reinstated where it was endangered, or perhaps already impaired.

The benefits of shoulder-braces to the human system are now so generally and thoroughly known, that neither physicians nor invalids often object to their being worn; but when they were first introduced, and their great benefits proclaimed, physicians were among the leading opponents to their use; a great many opposing them who had never seen the instrument, and who did not really know what they were opposing. They based their opposition, as they said, simply on the general principle, that God had made us right, and if we had needed shoulder-braces, he would have put them upon us; that for man to attempt to supply any thing to the human frame, was to charge God with having foolishly omitted, or perhaps overlooked, something essential to its perfection. These pious philosophers forgot that the collar-bones are shoulder-braces of the most perfect character; and that did not vicious habits, and unhealthy employments, stoop and distort the frame in spite of them, no artificial help would be needed. Reason is bestowed upon us that we may

remedy the injuries which accidents and injurious habits inflict upon the masterpiece of God's handiwork—the human frame.

I seldom treat disease of the lungs or heart, or any weakness of the chest or pit of the stomach, without advising the use of shoulder-braces, where it is practicable to wear them. They are not worn at night or in bed, but only during the hours of the day when the patient is walking, riding, laboring, &c., &c. Persons of every age, class, sex, and occupation, may wear them; excepting, of course, children under three or four years of age. They assist very much to expand the lungs, to remove weakness from the chest, and to prevent the exercise of the arms and hands from straining and weakening it, which will very often take place where the shoulder-braces are not worn, especially in delicate, weakly, and feeble people. To ladies and persons of sedentary habits, professional men and clerks, their benefits are inestimable. I would advise their universal use, in all cases of small chests and stooping shoulders. As I have said, I always use them in treating consumption. They are exceedingly valuable, whatever plan of treatment for restoring the health, strength, and symmetry of the chest, and preventing consumption, is adopted.

CHAPTER II.

PULMONARY CONSUMPTION—ITS VARIETIES.

The disease commonly known under the term *pulmonary consumption*, consists in a destruction of the lungs, to a greater or less degree, by a peculiar process of disorganization. It is a disease which, when fully developed in the lungs, possesses certain peculiar features and characteristics that readily distinguish it from all others, and which unerringly indicate its existence. This fact has given rise to a popular notion, more or less entertained by the medical faculty also, that consumption always *originates* in the lungs, and has a specific cause, operating only in these organs. *This is a great error*—a most disastrous error, blinding, in thousands of cases, both the physician and the invalid to the approach of the disease. While they are looking for it only in the lungs, and supposing that there is no danger so long as these organs show no signs of disorder, the enemy may be undermining the constitution through other organs, preparatory to seizing upon the lungs, and terminating life in true consumption.

It is, therefore, a fact to which I desire to direct special attention, as being one of great importance, that pulmonary consumption may result from a great variety of causes. I wish to impress the truth, that there are many other affections—disorders of the general system, as well as of particular organs—which may either determine upon the lungs, or so affect the vital powers and fluids of the system, as to induce true pulmonary consumption. For example, long-continued dyspepsia may result eventually in consumption. The same is true of diarrhœa, constipation, liver complaint, some disorders peculiar to the female constitution, certain skin diseases, cancer, scrofulous tumors, &c.; and so of long-continued fevers, mechanical injuries, that prostrate greatly the strength of the system, occasioning a long confinement in the house or in bed, &c. Perhaps the most familiar ex-

ample of a distinct and independent disease, eventually causing destruction of the lungs under certain circumstances, is that of

A COMMON COLD.

This affection has, as we shall see, no *necessary* connection with the lungs; and yet how often does a simple cold end in consumption! What *is* the disorder known as a *common cold?* Confining my remarks to what is called a cold on the lungs, I reply, it is not, as many suppose, something inhaled into the lungs with the breath; nor is it the result of any direct action of cold upon the lungs themselves. On the contrary, it is usually the effect of an influence exerted by cold upon the surface of the body; being nothing more nor less than the sudden checking of the perspiration, which, in a state of health, is constantly passing through the skin. This perspiration consists of waste or worn-out matter, which is taken up from the blood by certain organs called *sudorific glands*, whose office is to eliminate this dead matter, and expel it through the pores of the skin. If it is retained, it becomes a source of disease—acting as an irritating, mischievous poison. In a healthy person it is constantly passing off, to the extent of three to four pounds every twenty-four hours, by what is called *insensible perspiration*, being in a state of vapor. It is only when it is poured out very rapidly, by increasing the heat of the body, that the perspiration becomes *sensible*, or appears as a fluid in drops on the skin. This is termed *sensible perspiration*, or *sweating*. The uninterrupted flow or expulsion of this dead matter is absolutely indispensable to health. The instant it is checked at any point, there is mischief done. One of the most common modes of checking it, is by suddenly chilling the skin, as the effect of cold on the skin is to close its pores, or those minute channels through which the perspiration passes. Thus, when a person perspiring freely becomes rapidly chilled, and the perspiration is arrested, he is said to have "caught cold;" this dead matter has been retained, and thrown back into the blood, when it is either carried throughout the system, causing a general disturbance, or it determines on some organ, or set of organs, or to one point. Then it is said, the person "has cold in the head," or "a cold on the lungs," or that his cold has "settled" in the throat, the neck, the back, the joints, or elsewhere. When this chilling of the surface is confined to a small space, the checked

perspiration is apt to "settle" in the immediate vicinity of the place thus chilled, and to disturb, at first, but little the general system. Thus a person sitting with a "draft" blowing on the neck, will soon have a stiff neck or sore throat, with perhaps no other indication of having taken cold. When, however, the whole, or the greater part, of the surface is suddenly chilled, the general system usually suffers to a greater or less extent, and, at the same time, some one or more of the great vital organs is apt to receive, especially, the shock of the mischief caused by the suppressed perspiration. The lungs, of all these great organs, are most exposed to the attack; both because the blood, which is loaded with the retained poison, is all *filtered*, as it were, through them; and because it is one of the duties of the lungs, when the skin, or any other of the organs of excretion, fails in its appropriate work, at once to take upon themselves the labor, and render all the assistance in their power in cleansing the blood of impurities. When, therefore, the pores of the skin are closed, the waste matter, not finding a way out, rushes to the lungs for escape. Then we have more or less congestion of these organs. The membrane lining them becomes irritated and inflamed, by the presence of the poison, and strives to expel the enemy by pouring out an increased secretion, causing a cough and expectoration more or less profuse. This is what is termed a "cold on the lungs," which, as every one knows, may, unless arrested, end in "consumption," and destroy life; especially where there is a constitutional tendency to this disease. I here repeat, therefore, what I have before remarked, that a "common cold" furnishes a familiar example of a distinct and independent disease, determining to the lungs, and resulting in consumption.

But what is true of a "common cold," in the above respects, is equally true of a great variety of other disorders. Indeed, it is a fact that there is scarcely any form of disease, whether general or local, that may not become the source of pulmonary consumption. In the course of my practice, I have been able to trace affections of the lungs directly to many of these foreign sources; and it is my purpose, in the following pages, to give the result of my observations, not only in regard to the diseases which seem to originate in the lungs themselves, but also those forms of pulmonary disorder which are transferred to the lungs, or to which the lungs are subject, from disease elsewhere. In doing so, I shall take the liberty to designate

the disease in the lungs, in each case, by a term indicating its origin. Thus, when it has resulted from disorder of the stomach, I call it "dyspeptic pulmonary consumption;" when from disorder of the liver, "hepatic (or liver) pulmonary consumption;" when from derangement of the bowels, "intestinal (or bowel) pulmonary consumption," &c. This, I think, will be found a convenient and appropriate nomenclature, as it will, in every instance, disclose the origin of the disease.

Before, however, proceeding to the different varieties of consumption, I will here dispose of the subject of "*hereditary* consumption," as this can hardly be called a particular *variety;* the hereditary predisposition influencing more or less all varieties.

HEREDITARY CONSUMPTION.

The offspring are reproductions of the parents, often in the minutest particulars; and still more universally so in their general constitutional characteristics. In general, the children will inherit a predisposition to such diseases, as those to which their progenitors were subject, whether cancer, salt rheum, skin diseases, &c. Humors of every species, and particular weaknesses or particular strength, in any organ, or set of organs, are also transmittible; and hence the parents may communicate to their offspring weak lungs or strong lungs, large or small lungs. They will transmit strong appetites or weak appetites, large mental capacity or imbecility, deformities or malformations. I have known a father, having a withered arm, receive from his wife children with withered arms. If the parents are scrofulous, the children are liable to become so, and the development may follow at an earlier or later period of life. Indeed, sometimes parents are so depraved by a tuberculous disposition, that their children may almost be said to be born with consumption. And yet it seldom occurs that a child has any apparent hereditary disease at its birth; although I have known a child born with the ague and fever, derived of course from its mother, who, while bearing it, had been the subject of this disease. It is, I repeat, rarely, however, the case that children are born with any hereditary disease apparent upon them; consequently, a longer or shorter period may elapse before the disease shows itself, and this interval is one of what is called *predisposition.*

This predisposition, which is a peculiar constitutional liability to the development of a disease, is far more easily cured and eradicated from the system than the disease itself. While those thus predisposed are of course more subject to disease, and though the disease, when it occurs, makes more rapid progress, still it does not by any means necessarily follow that because the parent has had consumption, the child shall certainly have it too. If the causes that tend to develop the predisposition to the disease are removed, and proper means employed to eradicate it, the children of the most sickly parents may grow up perfectly free from consumption, and all development of hereditary disease. I am disposed, indeed, to think, that there is no disease to which we are liable, whose prevention is more perfectly under our control than tubercular consumption. If the child has inherited diminished vital powers from its parents, either generally or locally, either in the whole system or in any one particular organ—such as the brain, the lungs, the stomach, the heart, &c.—we shall find that by employing proper means to obviate any difficulty or derangement of the individual organ, and at the same time by using proper measures to strengthen it, its hereditary or predisposed weakness may be entirely removed. It should be remembered, also, that the same cause which develops disease in a person predisposed to it, or eventually in a person not predisposed, where disturbing causes operate for a length of time, will finally produce the disease itself as effectually as if there had been an hereditary tendency.

How often do we see persons whose parents were perfectly healthy, become the subjects of disease which their parents had escaped, and this from influences that did not act upon the parents! This we find illustrated in thousands of instances,—in children who, having left healthy situations and healthy occupations, and from necessity or choice adopted unhealthy occupations, pernicious habits, or unhealthy locations for residences, finally become subjects of disease. To this class belong especially healthy farmers' children, who have exchanged their country residences, with the pure air and wholesome food of their homes, for confined residences and occupations in manufactories,—or in cities where impure air, low living, constrained positions at their labors, demoralizing habits, and depressing influences, grief, &c., will so reduce the vital energies and break down the powers of life, that a predisposition to consumption is rapidly developed,

and as fatally consummated as if the patient had been of unhealthy parents.

Allow me to repeat, that a predisposition to disease, from any hereditary taint, is not the disease itself; nor does it necessarily develop the disease, which, on the contrary, may, by proper measures, be wholly eradicated from the system, leaving the person so predisposed as perfectly free from any danger of finally incurring the disease, as if there had never been any predisposition at all in the system.

We are now prepared to notice the different varieties of consumption; and I will first ask the reader's attention to that variety which is considered the most incurable, as it is the most common, and which *seems* to have, more than any other, its origin, as well as seat, alone in the lungs.

TUBERCULAR CONSUMPTION.

The term, tubercular consumption, is very frequently employed. It is seen in most medical books, and is heard from the lips of every physician, until it has become familiar to all; yet the disease it is intended to designate—simple, pure, and uncomplicated with any other affection of the lungs—is of comparatively rare occurrence. For in almost all cases of the disease called tubercular consumption, it is not purely so, but is complicated with other complaints,—such as bronchitis, pulmonary catarrh, &c.

True tubercular consumption possesses peculiarities which distinguish it from almost every other disease. We can trace the cause of most other disorders to some specific source,—to a poison in the blood, to a violence inflicted, to a loss of symmetry, or the derangement of some particular organ; but in pure tubercular consumption, the cause is to be looked for almost always in a peculiar diminution of the vital powers; as a consequence of which, when protracted to a certain extent, the vital fluid—the blood—becomes degenerated, and a portion of it loses its capacity of being appropriated and built up into the system. This portion which thus fails to be vitalized, becomes, as it were, foreign matter in the system, and generates disease, unless it is expelled. It constitutes a vicious species of debris or waste matter, circulating sluggishly, and liable to be deposited in certain portions of the system, and in certain organs where the

blood-vessels through which it flows are extremely minute, and the general circulation is carried forward with the least activity. Here this unvitalized part of the blood becomes separated from the portions which are purer, more lively, and endowed with more vitality; and, aggregating in masses, constitutes tumors of various kinds, scrofulous or otherwise, and very commonly what are called *tubercles* are formed. These tubercles are more liable to be deposited in the lungs than anywhere else. This will be seen, if we consider for a moment the peculiar organization and office of the lungs. It will be recollected that the whole blood of the body passes through the lungs, to be exposed there to the action of atmospheric air, and thus to become arterialized or converted from venous into arterial blood, by which process it receives the vital principle of the air, oxygen, and is thus prepared to carry life and vitality to all parts of the body. To accomplish this, it is, in the lungs, carried through an exquisitely delicate net-work of extremely minute blood-vessels; and, in its progress, any portions of it which are not homogeneous, or thoroughly united with the mass, or which are gross and heavy, as also any crude, undigested, or foreign matter which it may contain, are liable to be arrested, and fail to pass through. Where these portions are thus arrested and detained, the blood-vessels become of course choked up; other particles of crude, unvitalized matter, in time, aggregate with the first deposits, and *tubercles* are established.

In some cases these deposits will take place in small points, throughout a large portion of the lungs; in others we find them occupying one particular locality, whilst every other part of the lung presents a healthy appearance. At first, these points of deposition are usually very minute and slight. The manner in which the tubercles segregate may be likened, in some degree, to the effects of water when thrown upon red-hot iron: although thrown in a mass, it rapidly divides into little globules. Could these be congealed at the moment, they would be found to present an appearance similar to primitive tubercles in the lungs.

In accordance with these views—namely, that tubercles are a true deposition from the blood—we shall find that, in those parts of the lungs where the circulation of this fluid is most active, tubercles will most rarely be seen; while others, where it is less active, will be found more liable to tuberculous deposits. This is a rule to which there are few, if any, exceptions in the phenomena

of tubereulous formations. The lower portion of the lungs, where they are aeted upon by the diaphragm beneath, and where the ribs are more elastie, rarely, in the first instanee, show tubereulous deposits. But they will be found first in the upper portions of the lungs, beneath the eollar-bones, and in front of the shoulder-blades, as well as in the posterior portions of the ehest, where the ribs have the least movement, and where the eireulation is eomparatively passive. Henee it is that tuberculous deposits eommenee in the top of the lungs, or very apex. Aeeording to my experienee, in at least five out of every six instanees, they begin at the top of the *right* lung; for although it is the largest, and subjeet to the influence of the right arm, whieh is most frequently used, yet the position of the liver beneath slightly impedes its movement when eompared with the left; and this difference, though small, eauses the more frequent eommeneement of disease upon it. Should the eauses which produee the first tuberculous deposit, continue in aetion, other deposits will naturally follow, until large masses of tubercles are formed, and the whole lung eventually is involved in the disease. Should, however, the vital powers of the system again, from any eause, regain the full standard of health, and a perfeet eireulation of the blood be re-established, the tubereulous deposits may be absorbed and removed from the lungs.

There are individuals who deny that tubereles are ever absorbed and removed from the lungs. They assert that a ehild, born with tubereles in its lungs, will neeessarily earry them with him through life. That this is not eorreet, may be inferred from the well-known faet that, in the case of tubereulous deposits in other parts of the system—as, for instanee, serofula in the neck—we find them removed by the use of appropriate remedies. The same proeess may take plaee in the lungs. It will not be denied, that the absorbents are eapable of earrying off every part of the system, and do remove even the bones themselves. If they ean remove bones, they ean eertainly remove tubereulous matter. I need not say that it is as ridieulous to deny the existenee of absorbents in the lungs, as to deny that of tubereulous deposits themselves. But we are not left simply to *infer*, from analogy, that this proeess of absorption may take plaee in the lungs. I am confident I have witnessed the fact in my practiee.

SYMPTOMS OF TUBERCULAR CONSUMPTION.

I would here remark, that all the different varieties of consumption which are described in this book, retain their original characteristics till a late stage; but at the last, and near the close of life, they take the form of original, simple, and uncomplicated tubercular consumption. The remarks that I am about to make here, apply to tubercular consumption in its simple form, uncomplicated by any other disease.

One of the earliest symptoms of tubercular consumption perceived by the patient, is debility, accompanied by disinclination to activity, loss of vigor, feeling of inability to perform accustomed duties, or to accomplish accustomed tasks; a slight shortening of the breath upon any exercise, as, for instance, ascending a stair, walking up-hill, attempting to run, or making any unusual exertion. This shortening of the breath increases more or less as tuberculous deposits are more or less extensive in the lungs. Very soon a sense of tightness will be felt, as if the chest could not be expanded, with a desire to take long breaths, but an inability to do so. The breath seems cut off, and the air is expelled rapidly from the lungs; the breathing becomes habitually quicker. At length commences a slight, almost imperceptible cough,—so slight at first that the patient will not consent to call it a cough—only a slight hacking. Often a little over-exercise of the lungs will cause it, as laughing heartily, loud speaking, &c. It often occurs upon rising in the morning, or getting into bed at night, or on going from a warm to a cold room. This cough is frequently noticed by friends and companions long before the patient acknowledges it. A slight stooping of the chest will soon be observed, the breast becomes narrower, the shoulders approach each other, and an observer is impressed by the fact that the individual's chest is becoming contracted.

At a period more or less early, we find that a particular part of the chest, most usually on one lung, and at the very top, is immovable when a long breath is taken: it does not expand; and any patient may be satisfied of this by exposing the chest before a mirror, when, upon close observation, it will be seen that some part of the chest—generally the upper part, just below the collar-bone—does not rise with the rest. When only one lung is affected, the difference is more

marked, because we notice that the opposite side of the chest fully expands; and where the affection is considerable, we shall notice an absolute and marked depression in the ribs, on the affected side. There may be depressions in the chest from natural malformation, or from accidental causes, which have acted externally upon it. But such causes of deformity will usually be in the recollection of the patient. Thus, although depression in any part of the chest is not in itself proof that the lung is diseased there, yet if, upon taking a long breath, every other part of the chest rises and expands freely, and this part does not, we have very great reason to conclude that tubercles have been deposited, or that the lung has become wasted.

This depression should not, therefore, be relied upon alone to determine the presence of tubercles. It is only a confirmatory symptom in the group of symptoms which are presented in this disease. It is here that the value of auscultation is shown; this will at once remove or confirm the suspicions which a depressed chest may have excited. The practised ear, applied to the chest, will detect the existence of tubercles, if they are present.

As the disease progresses, the patient, at some period of the day, feels slight chilliness, and there is perceived a little blueness and coldness at the ends of the fingers. Frequently a creeping sensation down the spine, between the shoulders, or in the small of the back, is felt; sometimes a sensation as if water was poured over the part; at other times as if cold air was rolling down it, although at the time fully and warmly clothed. The patient will be observed to approach the fire, and will not be so susceptible as others to the heat. This chilly sensation is usually followed by a slight fever, a little flushing of the cheek, accompanied by more or less headache, which soon passes off. A recurrence of the same symptoms will be remarked on each succeeding day. Towards evening the patient finds his voice a little husky; and on the occurrence of a damp day he feels the tightness in his chest increased, and the shortness of breath becomes greater; the chill is longer, and the fever more prolonged. He almost instinctively dreads the night air, as it seems to increase his cough and aggravate all the other symptoms. Occasionally now he perceives that he perspires at night, or on lying down; but this he explains by supposing that the temperature of the room in which he reposes is higher. These symptoms, if unchecked, increase more or less rapidly, and with them increasing debility is experienced. Now

commences a slight expectoration of frothy matter in the morning, and, in some instances, very slight spitting of blood. The appetite is generally still good, and no function of the system seems materially disturbed. He has little or no pain, and, judging by his own feelings, he would be as well as ever, if he could only regain his strength. He is disposed to attribute his weakness, his cough, his fever, and night-sweats to unfounded and adventitious causes. With the greatest pleasure he will hear favorable explanations made by sympathizing friends. Tubercular consumption, indeed, differs in this respect from all other diseases. The symptoms almost invariably flatter and deceive, and the explanations which the patient and his friends continually make, are quite inconsistent with the reality. The tubercles now begin to soften—as it were to rot—in the lungs, being reduced to a cream-like matter, and are gradually discharged by expectoration. Sometimes, however, they suppurate, and are expectorated with hardly any change; as, with the sputa discharged by consumptives, we often notice crude tubercles that have not softened at all. During the process of softening, the chills, the fever, the cough, and the night-sweats are all greatly aggravated.

Frequently the tuberculous mass is isolated, or exists in small quantities in a solitary spot. On its being discharged, the lung sometimes heals, leaving either a cavity lined by a membranous formation, or else a cicatrix or eschar. The patient now seems to improve—all the symptoms are moderated, the chills are less, the fever is less, the night-sweats disappear, the cough almost ceases, he rests better—and in all respects seems convalescent. In this condition he will continue, until another set of tubercles forms and begins to soften, when all the first symptoms will reappear, perhaps much aggravated. In some cases, however, the tuberculous deposits remain in one part of the lungs simply in a state of deposition; while in others they are undergoing the process of softening; and at the same time, in a third, healing is taking place where they have been discharged,—the process thus going on till the lung is totally destroyed. In some cases deposits of tubercles may soften only at long intervals, and the progress of consumption be very protracted. In others the processes of deposition and softening may go on together, and be continuous, when all the symptoms will be steadily and progressively aggravated, and the patient rapidly and steadily decline. This of course would be influenced by the degree of predisposition

existing in the case, and the strength of the destructive causes, whatever they may be, acting upon the patient. It should be remembered that any thing whatever which tends to debilitate the patient, will increase the disease. In some cases of pure tubercular consumption, I have known the disease pass rapidly to a fatal termination without the intervention of any softenings whatever, and without any expectoration; but such cases are extremely rare. I will mention one, on account of the peculiarly interesting circumstances attending it.

Mrs. R., a resident of Brooklyn, N. Y., had a large scrofulous mass deposited under the right ear and down the neck. This increased to a remarkable size, so as to be an ungainly deformity. She had no hereditary predisposition to phthisis, but was of a delicate constitution, and her natural delicacy of health had lately been increased by parturition. A few weeks after this event she had two or three chills. Her physician, a gentleman of some eminence of that city, gave her metallic tonics, iodine, iron, &c., for the tumor, and iodine was applied freely to it; but no effort was made to expand or improve the state of the lungs, or in any manner ascertain their condition. Soon now commenced one of the most curious processes with which we meet in the whole phenomena of disease. This large mass on the side of the neck began to disappear, and, proceeding *pari passu* with its disappearance, occurred shortness of breathing, as well as a debility, which were imputed to nursing. Great joy was felt at the rapid diminution of the tumor. The child was weaned. Still there was no augmentation of strength. The lady remained confined to her house until April, and was not allowed to go out, from fear of aggravating a very slight cough. In April she went to the country, visited several watering-places, received the counsel and attendance of several prominent physicians, and, as she was perfectly easy in her circumstances, pecuniarily, every thing was done that affection or science could suggest.

She frequently expressed a wish that I should be consulted, if any thing was the matter with her lungs; but all her physicians assured her that her lungs were perfectly well. In the August following she visited her parents at New London, Conn.; there I saw her, and met in consultation her very intelligent attending physician, Dr. P., who had recently taken charge of her case.

The curious process to which I have referred—the remarkable

phenomenon of the exhibition of a power in the system eapable of removing a scrofulous mass of matter existing in one part of the body, and depositing it in another, was presented in this ease; this tubereulous mass had been removed without any softening, and deposited in the bases of both lungs. The lady had been taught to suppress her cough. No physician had advised the expansion of the chest; the lower part of which, in eonsequence of lacing and the absenee of all voluntary expansion, was far less active than the upper. Henee the deposits eommeneed in the bases of these organs. Slowly and gradually they filled up, from the bases to the tops, obliterating all the air-passages and eells, and rendering the lungs eompletely solid, like the mass on the side of the neck.

When I first saw her in August, I examined her ehest in eompany with Dr. P. More than two-thirds of the lungs were filled with this tubereulous matter. She experieneed but a slight cough, no pain, and little fever. Those not acquainted with such a ease eould not aeeount for her weakness and shortness of breath. Her mental powers were perfeetly elear, but all the functions of physical life were reduced to their minimum of aetivity and vigor. She had a fair appetite, but could eat very little, beeause eating gave rise to great shortness of breath. While at rest, she felt as if she eould walk and go out as well as ever; but on attempting to do so, debility and shortness of breath utterly prevented. Her ease had become entirely hopeless; and, as to the cause, her intelligent physician and myself agreed that the eourse of treatment previously pursued, embraeing the applieation of remedies to the serofulous tumor on the neek, had driven the tubercular deposits to her lungs, inducing the terrible eonsequenees which I have narrated. The progress of the disease was very anomalous in this most unique case. As water rises higher and higher in a receiving vessel, so these tubereular deposits eontinued advancing upwards until they filled the whole ehest, and the patient was literally suffocated. No softening, no expeetoration of matter had taken plaee during the entire progress of the disease.

It was, both to her attending physieian and myself, a most impressive warning against the impropriety of ever using external applieations to discuss or drive off tubereular deposits, without at the same time thoroughly securing the internal organs of the body, and partieularly the lungs, against the great danger of these deposits being determined upon them.

I have witnessed one other case similar to that of Mrs. R. It was that of a young lady whom I saw in Vermont in 1849. She came sixty miles to visit me. Her chief symptoms were shortness of breath, great struggling in respiration, and much debility consequent upon it. Her lungs were nearly filled up; the process commencing at the bases, and but a small portion remaining unaffected at the top of each. After ascertaining the true condition of her lungs, and determining in my own mind that her case was entirely hopeless, I was asked by an intelligent lady who passed through the room, whether this young woman had not worked in a cotton-mill. I told her that she had. "Well," replied the lady, "I thought so." I have seen several such cases in New Hampshire, occurring in persons who have worked in the cotton-mills; and they are, no doubt, caused by foreign matter being carried down to the bases of the lungs during inspiration, and there accumulating until it arrests the action of a portion of these organs,—thus becoming a nucleus for the secretion of tuberculous matter.

PERSONS LIABLE TO TUBERCULOUS DEPOSITS IN THE LUNGS.

Having noticed, in a cursory manner, some of the principal phenomena attending the deposition of tubercles in the lungs, and the progress of true tubercular consumption, I will add a few words to indicate the persons liable to these diseases; or those whom certain habits and conditions of life—in fact, all causes that tend to debilitate and break down the system—will more incline to tubercular consumption than others differently formed or constituted, or living under more healthful influences.

It is neither correct nor just to designate any one class of people as highly predisposed to consumption; because in every class we continually find the victims of this disease. All that we can say is, that we meet more of a certain description of persons who have consumption, than we do of another. For example: the mulatto half-breed, and the various crosses between the colored and white races, will be found much more liable to consumption than the pure-blooded negro or Indian, or the pure-blooded Caucasian; and, as a general rule, all the conspicuous crosses of the human family are much more apt to have tubercular consumption than the pure original stock. The half-breed Indian, when exposed to depressing influences, is far

more liable to pulmonary consumption than the pure Indian or the pure white. Passing over this mingled blood of distinct races of men, we find that in our own race, or the family to which we belong, persons of sandy complexion, men with sandy whiskers, blonde or red hair, who have a preponderance of the sanguineous temperament, with a clear white skin—ofttimes with freckles—and soft blue eyes, have generally much less ability to sustain hardships and taxation of their vital energies, than those of the bilious or phlegmatic temperament. These persons are peculiarly liable to pulmonary consumption. Still, while this is so, no class whatever can be said to be exempt from the causes of this disease.

Persons who are slender and tall, but more particularly the slender, whether tall or short, with flat chests, and lungs small in proportion to other parts of the system, are much more liable to consumption than those with full chests, and lungs relatively large. The phlegmatic temperament is more liable to consumption than the bilious; and, as a general rule, it may be remarked that persons of a bilious temperament and black hair,—brunettes, with thick skin, good appetites, good digestion, and an uneasy, restless habit, are less subject to consumption than any other class.

TREATMENT OF TUBERCULAR CONSUMPTION.

In describing the causes and origin of tubercular consumption, I have endeavored to explain that the deposited tubercles are primarily the result of debility and a low state of the constitution, induced by bad air, prolonged study, confinement to debilitating labors, long-continued sickness—or, finally, any cause that tends to break down the powers of life, contract the chest, or arrest the circulation. With this view of the disease, we are prepared to see that our plan of treatment should be one tending to expand the chest and restore it to perfect symmetry; to inflate the lungs, and thus more completely secure the perfect aeration of the blood; and then we should use such medicinal and hygienic remedies—constitutional and local—as will cleanse the blood of humors, cure all disorders in every part of the body, promote the absorption of tubercles, if they exist, heal ulcerations, remove bronchial inflammation and irritation, and restore the vital energies of the whole system, and each organ of it, to the highest degree of healthy activity. Free air,

out-door exercise, change of location, travelling, pleasant and cheerful society, well-ventilated rooms, spending as much time as possible in the country—in mountain districts and dry situations, avoiding damp, unhealthy locations, crowded rooms, ill-ventilated apartments, &c., all highly contribute towards restoring the patient to health. The inhaling tube—an instrument used to aid in forcibly inflating the lungs—should be freely employed to keep the chest expanded, and to promote a lively circulation of blood through the lungs. Long, full breaths should be taken in a pure, cool air; and cold bathing, salt-water bathing, or sponging the person in spirits, or spirits and water, should be resorted to. Some constitutions will be greatly benefited by the administration of alcoholic or fermented liquors, in small quantities, especially pure brandy, old Jamaica rum, London porter, &c. Every cause that tends to debilitate the system, should be carefully removed and avoided. Mechanical remedies, such as shoulder-braces and abdominal supporters, should, of course, be employed when needed, except in very young persons, by whom they cannot be worn.

THE INFLUENCE OF POSTURE IN LUNG DISEASE.

I shall here dispose of the subject of position, and its application to the treatment of pulmonary disease.

In all cases of fever and inflammation, where it is desired to reduce the circulation in the system, or by rest to prevent excitement and exhaustion, the patient is allowed and requested to remain in bed. But in every form of lung disease, a recumbent posture should be avoided as far as practicable, and the hours in bed be as few as possible; lying in bed having a special tendency to arrest the circulation, and produce congestion of the lungs. In cases where there is predisposition to consumption, and the patient, from any cause, is inclined to continue long a-bed, this habit should be renounced as soon as possible. Delicate ladies, inclined to pulmonary disease, or whose lungs are already affected, should not, if it can be avoided, remain in bed after parturition more than three days before they are bolstered up, or made to assume the sitting posture as much as practicable. They should, of course, be thoroughly bandaged and perfectly supported, so that falling of the bowels and womb may be prevented. As early as their condition will permit, they should be invited to

get up, and attempt walking. The chest should be bathed freely in alcoholic liquor, warm or cold, but generally tepid. In this way the usual bad consequences of confinement will be diminished or prevented. Lying long a-bed, or in any recumbent position, after parturition and during the progress of most fevers, I have no doubt is a very powerful cause in producing pulmonary consumption. We often see this disease originate towards the close of a long-continued typhoid fever, and I have not the least doubt that in persons predisposed, it may result, in a considerable degree, from this recumbent position. In conclusion, I would say, no person predisposed to pulmonary consumption, or already affected by it, should ever indulge in the habit of lying long a-bed, or in recumbent postures. On the contrary, the patient should sit up, walk about, ride, &c., as much as possible, and avoid lying down so far as practicable, save during the regular hours of sleep.

CHAPTER III.

PULMONARY CONSUMPTION—ITS VARIETIES—*Continued.*

BRONCHITIS AND BRONCHIAL CONSUMPTION.

What is bronchitis? By almost universal consent, bronchitis is understood to be a disease of the mucous membrane of the throat, the windpipe, and air-passages. It is mostly, however, considered to be confined to the throat. Physicians make several diseases of the air-passages, such as laryngitis, trachitis, bronchitis, &c., as the disease affects the larynx, the trachea, or the bronchi. I shall speak of these as one disease, under the name *bronchitis*, to meet the popular acceptation of the term. I again ask, what is the nature of bronchitis? and reply, it is a true skin disease, located on the membrane, which is in fact the *skin*, that lines the throat and air-passages. If this disease were on the hands, face, or surface of the person elsewhere, it might be salt-rheum, tetter, acne, ringworm, &c., &c. Some of these diseases, as is known, discharge much watery matter. This is specially the case with salt-rheum. Others are dry, and do not form matter, but roughen and crack the skin, or form scales that drop off, and leave red, inflamed blotches, &c. The same phenomena occur in the various forms of bronchitis. In some cases we find profuse secretions, and patients expectorate large quantities of matter, which is sometimes thin and watery, and at others thick and tenacious. In other cases but little is raised; but a most distressing tightness and dryness, often with much itching and tickling, are experienced in the throat and windpipe, extending at times to the lungs. These, with other facts, indicate that this terrible complaint is in its nature a true skin disease. In every variety of consumption, bronchitis is almost always present, and forms a part of the wasting malady which finally terminates in death. In some 35,000 cases of lung disease, for which I have been consulted, I do not think I have seen half-a-dozen in-

stances of true consumption, in which there were no traces whatever of bronchitis.

Bronchitis is, indeed, a most common complaint. Thousands of people have it more or less severely, usually in the cold or changeable weather of fall, winter, or spring—the disease subsiding of itself, in very many cases, in warm weather: following, in this respect, the laws of salt-rheum, and some other skin diseases, which are known to appear in their worst forms during the cold and changeable seasons of the year, and to disappear, perhaps, in summer. Sore throat, hoarseness, and cough, with expectoration, frequently subside in summer, and the patient believes himself well. Many medicines have the reputation of curing disease, when given at the commencement of the warm season, which are found to fail at all other times; showing the cures to be the result of a change of season, from cold to warm, and not of medicine at all. The first material change in the weather, at the approach of autumn, exposes the sad mistake. After salt-rheum has existed for some length of time, we find that the recurrence of warm weather does not abate it. The same is true of bronchitis. After it has become thoroughly chronic, it will continue with but little, if any alleviation, during the whole summer months, and often steadily progress until bronchial consumption is fully established. As bronchitis, either in the throat or lungs, almost always accompanies true tubercular consumption, and, in its earlier stages, is better in warm than in cold weather, consumptives are very generally invited to visit a warm climate; and we have here an explanation of why it is that consumptive invalids for a time imagine themselves improved by going South. Their cough becomes less, they expectorate less, have less pain and tightness in the chest, &c., &c.; but a sad experience usually proves that the great disease—the tuberculosis—the true consumption—goes on unchecked, and often as rapidly becomes fatal in a warm climate as in a cold one—sometimes even more rapidly. In some rare cases, certain skin diseases show themselves only in hot weather; as, for instance, shingles, hives, &c. So, in some rare cases, bronchitis occurs only in hot weather; and, what is singular, it appears at a particular time in hot weather. For example, we find those who will be severely attacked just about the time roses begin to flower, and have what is called a *rose cough*. Others have what is called a *hay cough*, coming on at the season of hay-making. Some individuals are affected with

these coughs with astonishing regularity, each successive season, for many years.

HOW BRONCHITIS BEGINS, PROGRESSES, AND ENDS.

I have shown that bronchitis is a true skin disease. It generally begins in the cold or changeable season—in damp, dark weather, and is most usually excited by a severe cold. Sometimes it is not imputed to a cold, but it is always aggravated by it. It begins with hoarseness or huskiness of the voice, very slight at first, with slight soreness of the throat. The tonsils may become a little swollen, and a tough, strong. bluish phlegm is coughed, hemmed, or scraped up from the throat. Heat, dryness, and tickling often come on, which are slight at first. Frequently, towards evening, at a change of weather, from fair to foul, or on the springing up of a cold, damp, easterly wind, the patient suddenly becomes hoarse, feels every unpleasant sensation aggravated, and it seems to him that he is breathing through wool, or something like it, and his swallowing is more or less affected. He finds the night-air, and all cold and damp air, to disagree with him. Towards morning he may feel a little easier; but, on rising from bed, he finds that his throat is more or less filled with phlegm; which, however, by considerable hacking or scraping, perhaps a little coughing, he is enabled to raise and discharge. In this stage he often finds temporary benefit from using various candies, &c., which soften the phlegm and clear his throat. Soon his voice becomes much weaker. He cannot sing or holloa, as he once could; continued reading or talking becomes impossible, seeming almost to close up his throat. A hearty laugh is dreaded, as it throws him into a fit of coughing. He has pain, soreness, and weakness in the neck and chest, more swelling of the internal parts of the throat, more weakness of the throat, more cough, more expectoration, and more fever; better days or hours are rarely experienced; command of his vocal organs is impaired, or destroyed; until, finally, his once noble, sonorous, manly voice, diminishes to a feeble squeak, or is lost altogether. Swallowing, especially fluids, becomes nearly impossible; ulceration soon appears, and becomes confirmed, steadily growing more and more aggravated in the throat and windpipe, involving the vocal organs, and finally invading the lungs. Chills and fever, night-sweats, debility, and rapid emaciation

seize their suffering victim, and soon death closes the melancholy scene. Such is the natural course of this disease, in many instances, when left to itself, unrestrained by remedial measures.

VARIETIES OF BRONCHITIS.

In some cases, bronchitis does not proceed, in all respects, in the way above described; but after being located in the throat for a longer or shorter period, it disappears from that part, wholly or partially. Soreness, swelling, dryness, heat, &c., subside, and the voice becomes clearer and stronger. Still, the cough and debility continue; large masses of phlegm are raised; night-sweats continue unabated; the breathing equally, perhaps even more, oppressed; and the delusion of being better, if it had existed, is soon gone. The humor has left the throat, only to take fast hold upon the lungs. Hence we see the imminent danger of destroying the lungs by driving humor from the throat, without at the same time preventing its falling on them. I have seen hundreds of perfectly curable cases of bronchitis, in which the disease has been driven from the throat to the lungs, and thus producing true bronchial tubercular consumption. A large proportion of the cases of cough seem to begin, at first, in the throat; and not until late in the progress of the disease, can the patient be convinced that his lungs are in danger, or that those organs are liable to become the seat of the complaint. In fact, almost every consumptive is deluded in this respect, and so delays, for many most precious months, often, when a few days of proper treatment would have removed the disease, which the delay makes difficult and doubtful of cure. Physicians, too, often hesitate to warn their patients of their danger. They find it very easy to persuade them that their disease is only a little throat trouble, and dislike to alarm them by announcing that they have consumption.

After bronchitis is fully established in the lungs, it may remain there, for many years, a simple skin disease, fluctuating in intensity as the seasons change, or the general health of the patient varies. If the general health is lost, or if, from any cause, at any time, it is greatly reduced, tubercles may be deposited in the lungs, and the patient may fall a victim to fatal bronchial tubercular consumption.

I would add, that the climate most favorable to the invalid suffering

from bronchitis, or bronchial consumption, is the one most exempt from sudden changes of temperature, and from dampness,—one that is mild, not subject to the extremes of heat and cold. It is a mistake that a very hot climate is desirable. One only moderately warm, is far preferable. An equable temperature, a dry atmosphere, and a prevailing bright, clear sky, is the best climate which the bronchial consumptive invalid can select.

IS BRONCHIAL CONSUMPTION CURABLE?

It will be recollected, as I have before said, that this form of consumption commences with a true skin disease, located on the membrane lining the air-tubes and cells. It is frequently left there by measles, whooping cough, scarlet fever, a common cold, &c. Although not confined to any age, it is one to which children and old people are most subject. It may, indeed, begin in childhood, and last through a long life, to old age. It is sometimes obstinate, and always dangerous; and although after it has been long established in an aggregated form, there may be alarming symptoms,—blood and bloody phlegm may attend the harassing cough—emaciation, loss of strength, distress for breath, &c., may be present, and the lungs may become wasted, and their structure changed,—still, it gives me pleasure to say that this form of consumption is perfectly curable, before the general health has become so far prostrated, the constitution so far undermined, and the lungs so far disorganized, that there is not vigor enough left to adequately respond to the remedies used in the system of treatment I employ. I have had the great satisfaction of seeing thousands of this class of invalids get well under this treatment, and could present their names and history. I will, however, ask the reader's attention to only one. The case is one of complete recovery from a disease which was clearly and undeniably true bronchial tubercular consumption, advanced to a late stage.

Case of Bronchial Consumption cured.

The subject of the following case was S. B. Dodge, of Yorktown, Westchester county, N. Y. His cough commenced in early childhood, and followed and harassed him forty years. When he came to me he did not remember a night or a day, in that long period,

in which he did not cough. There had been times when the cough was very severe, accompanied by expectoration of great quantities of matter, and often blood. He was greatly emaciated and debilitated, and had been unable to do any work for over a year. I found both lungs badly diseased—the left nearly destroyed. His whole left lung and side were so much affected that he could not lift his left hand to his head. Of course he had not the least expectation of a cure. In five months from the time he commenced my treatment, his health was restored, the cough had left him, and he was well. He called on me first the 29th day of August, 1850. Almost one year from that time he called on me in behalf of a sick neighbor, and said that himself and two others mowed down seven acres of grass the day before. He still enjoys excellent health. I permit Mr. Dodge to make his statement in his own language.

Statement of Mr. S. B. Dodge.

"YORKTOWN, WESTCHESTER CO., N. Y., Jan. 9th, 1851.

"DR. S. S. FITCH :—

"Dear Sir,—I have been subject to a cough and expectoration as long as I can remember. I am forty-two years old. I gradually wore down, so as, the last year, not to be able to work at my trade, shoemaking. Left side became so much affected, as to lose the use of my right arm and shoulder, pretty much. Cough extremely bad, and raising vast quantities of corrupted matter, and bloody phlegm at times; palpitation of the heart; constant dull headache; fever daily, and chills occasionally. Never knew a good night's rest, unbroken by coughing. Stomach out of order; some distress after eating; sickness of stomach. Doctored much, and of all kinds; not much help—only a little temporary relief. For one year I could do no work, and was scarcely able to walk. I gave up all hope of relief. In this state I called on you, at 707 Broadway. You examined my chest and whole case. You said you thought I could get well. On the 29th day of August, 1850, I took all your remedies—inhaling tube, shoulder-brace, supporter, and medicines—and all seemed to agree perfectly. I took the medicines about two months. I now seem to be perfectly well. I have gained twenty-one pounds of flesh. I still use the tube, brace, and supporter, and free cold bathing every morning. Your remedies have been in my case all

that praise can bestow. I work daily at my trade, and with happiness.

"Respectfully yours,

"Stephen B. Dodge."

In concluding this subject I would repeat, that in nearly all cases of *complicated consumption*, bronchitis, in some form, is one of the mischievous partners; thus forming bronchial tubercular consumption, bronchial asthmatic consumption, bronchial hepatic (or liver) consumption, bronchial bowel consumption, bronchial congestive consumption, &c. These varieties of consumption, and the meaning of the terms I employ to designate them, will be found fully explained in the subsequent pages.

BRONCHIAL TUBERCULAR CONSUMPTION.

Bronchial tubercular consumption is, *par excellence*, the disease usually called consumption. It is the one which prevails in the proportion of about one hundred to one of simple tubercular consumption. It is the disease which sweeps off about fifteen per cent. of the whole human family. It is confined to no locality; no portion of the globe is exempt from it, and no nation or tribe of men is known where it may not be developed. It results from the union of two distinct diseases, located upon the lungs, and which I have already described; the bronchitis being a true skin disease, an active principle, an aggressive enemy, that attacks the throat, the vocal organs, the windpipe, the trachea, the bronchi, the air-cells of the lungs, and, in fact, the entire skin or mucous membrane, which lines all the air-passages and air-cells of the lungs, that are visited by the atmospheric air in respiration.

In nearly every case, the bronchitis begins in the throat, about the root of the tongue, and back of the curtain of the palate. From these parts it extends more or less gradually to the larynx and all the vocal organs, rendering the voice husky, inducing hoarseness, soreness, dryness, and heat in the throat. Pain is often experienced on swallowing. The voice, in these cases, is greatly enfeebled by conversing or public speaking, which often induces even distressing lassitude and fatigue all over the system. Hemming, hawking, or scraping, at first, enables the sufferer to clear his throat. At

length a cough commences, not steady at first, but continuing for one or more days, then ceasing, until, by a cold, or some other exciting cause, it is renewed. At each return, the cough continues longer, until, finally, it is permanently established. In the beginning, on looking down the throat, the parts involved appear red and inflamed, and the tonsils often swollen. In an advanced stage of the disease, the diseased parts look cold and dead, and of a bluish-white color, with red engorged blood-vessels running over the bluish-white surface; whilst, at the same time, in a vast many cases, the heat, dryness, soreness, smarting, &c., continue unabated, and are truly terrible. It often occurs that during the whole course of the disease, almost to its termination in death, even when the lungs have become very much wasted and ulcerated, it is thought to be only a "little throat disease;" the fact that it has gone upon the lungs not being discovered, or at least not disclosed to the patient by his physician. In this way the fears of the patient for his lungs are quieted, and he is induced to submit to cruel operations on the throat, which only aggravate his condition by prostrating the system. Thousands of patients are thus lulled into a fatal security, and, under the impression that they have only "throat disease," or only "bronchitis," they direct their efforts to cure the throat, while nothing is done to protect or cure the lungs, which are slowly but surely decaying.

This peculiar affection being a skin disease, resulting from poison or impurity in the blood, no doubt exact counterparts of it may be found upon the surface of the body. In a vast many cases it has been known to exist both externally and internally in the same individuals. It is often the case that, after a time, an external skin disease will subside, and immediately an affection of the throat or lungs will make its appearance. It is in most striking contrast to its fellow, with which it is almost always associated—viz., tuberculous deposits in the lungs. Bronchitis is, as I have remarked, an active disease, making inroads, apparently, by its own inherent power of mischief; but tuberculosis is a simple negation,—it springs primarily from a negation of the vital energies of the system—from reduction of the powers of life—and is in no respect an active principle in itself. In its first inception, tubercle may be called an *accident*. Tubercles in the lungs are as much foreign bodies as pieces of marble would be, although not as suddenly injurious. Hence, while the formation of tubercles, and the occurrence of tubercular

consumption is perfectly preventable by means at the command of almost every individual, bronchitis is an active enemy, resulting from poison, and is not so completely and readily under our control. Thus it will be seen that bronchial tubercular consumption, consisting of two distinct diseases, must require distinct treatment and distinct remedies. Happily, however, the remedies required, though entirely different in some respects, may be made to harmonize with each other. In the ordinary treatment of bronchial tubercular consumption, as employed by most physicians, the medicines given do not harmonize: what is given for one affection increases the other, so that the general result of attempts to cure are found to hasten rather than retard the progress of the consumption. Sometimes the remedies are so improperly selected as to advance both diseases instead of arresting either.

SAD CONSEQUENCES OF CONFOUNDING THE TWO DISEASES.

In pursuing the history of this twofold disease, we shall find a constant complication of the symptoms that characterize each when existing separately and in its simple form. Sometimes the bronchial symptoms will prevail, and then the physician announces to his patient that he has only bronchitis. At other times tubercular symptoms predominate, and then the physician informs his patient that tubercles have formed in his lungs; when the fact is, that both tubercles and bronchitis are present. The same confusion takes place in the treatment. At one time the patient is treated very carefully for his bronchitis;—he is kept in a warm room, cold air and out-door exercise are forbidden, blisters are applied to the chest and throat, the throat within is cauterized with nitrate of silver, a low diet is prescribed, stimulants and tonics of all kinds forbidden, expectorants administered—narcotic, febrifuge, and reducing medicines, such as opium, ipecac, emetic tartar, squills, bloodroot, lobelia, tolu, benzoine, the turpentines, copaiva, and a great many others, are rapidly given; sometimes in very minute, and sometimes in large doses, in almost every imaginable variety of combination, and with almost every possible caprice in their selection. Under this treatment the bronchitis, not unfrequently, rapidly disappears, and I might say the poor patient also; for his declining strength, and his attenuation, soon leave but little of him either in power or substance. The nat-

ural supposition is, that the cure of his bronchitis would be the epoch of his returning strength; when lo and behold! it is only a period noted as a starting-point for a more rapid descent to the grave. The physician now at length discovers that his patient has tubercles in his lungs, and nothing can cure his disease. In fact, all the remedies he has employed, while they may have relieved the bronchitis, have, at the same time, actually aggravated the tubercular consumption to a truly incurable and fatal extent. In other words, every thing done for bronchitis, has only served to increase the tubercular disease. The tubercles, I have before stated, are a consequence of a debilitated system, the breaking down of its powers, or vital forces, from whatever cause, whether mechanical compression of the chest, preventing full respiration, and arresting the circulation, or from disease in other organs, &c.; and these remedies tend to reduce the vital powers, and of course to hasten tubercular deposition. You will now understand why such a treatment may benefit bronchitis, and at the same time rapidly increase tuberculosis, and its consequences.

On the other hand, the physician who, at the outset of the disease, pronounces it purely tubercular, and commences a course of tonics, such as iron and bitters; or of alteratives, as iodine and its compounds; of stimulants, such as wines, brandy, rum, alcoholic preparations, luxurious diet, &c., will rapidly aggravate the bronchial symptoms, such as sore throat, loss of voice, husky voice, violent coughing, &c. Then, when these appear, the physician wavers in his opinion, and, pronouncing the disease bronchitis, and, throwing aside his first medicines, resorts to those remedies used for the cure of bronchitis. Thus his practice will fluctuate from day to day, and from week to week, until he becomes completely confused, and his patient thoroughly prostrated and dispirited. Then, in despair, the patient, and perhaps the physician also, cry aloud for some specific—something easier to think of, and easier to take, than the multiplied remedies previously tried. But as no one remedy is known that has ever been effectual in curing consumption, of course under the administration of any of the many popular specifics that may be selected, the patient steadily declines, and soon dies.

The consequences are very sad of thus failing to distinguish between *bronchitis* and *tuberculosis*, and of the halting, fluctuating, mis-

taken treatment above described. Not only is the patient's life often sacrificed, where it might have been saved, but the cause of medicine itself is injured, and most unhappy remembrances are planted in the minds of surviving friends. The physician having, as he supposes, exhausted the resources of his profession, sees his patient die, with a profound but mistaken conviction that the disease is in its nature incurable. He has seen all his consumptive patients die in the same way, and he expects to see all die, in like manner, in the future. It becomes, therefore, a settled doctrine with him that consumption cannot be cured; and the doctrine once so settled, all progress in medical science and skill, in this direction, are of course paralyzed. Then, too, after death has closed the scene, to those who have stood by and watched the ebbing life of the poor victim of such mistaken diagnosis and treatment, there come sad recollections of the many cruel appliances and medicines employed, the suffering they occasioned, and the injury, it is now clear, they really inflicted. The mother remembers how often the loved one begged, "Give me no more,—give me no more." She recalls the frightful blisters—the torturing effects of the emetic-tartar sores upon the delicate, sensitive, shrinking bosom of her daughter. And as these harrowing memories come before her, there comes with them the agonizing thought that this whole treatment was a *mistake*, that only hastened the progress of disease, instead of arresting it; that her darling child had not only to suffer the painful effects of the disease itself, but the tenfold more painful effects of the doctor's remedies.

One would suppose that such an experience would not be likely to be repeated by those who had borne a part in it—that they would rather be in danger of becoming even distrustful of physicians, and disgusted with medicine; and that they would, at all events, promise themselves that never again would they allow any person over whom they should have control, to be so tortured out of life. And yet it is usually the case, that when the same disease attacks the next member of the same family, the same physician is called in, and the same sad scene repeated. I know the motives impelling to his continued employment are very strong. He is their *family physician;* he is their confidential medical adviser; he is the personal friend of the family, and, as such, has shown a kind, sympathizing spirit: they are united to him, too by *social* ties; perhaps it is through him that they have been introduced into desirable society,

even—society in which he holds a high position; they meet him at their social gatherings; his character is unexceptionable; his wife, it may be, is kind—even assiduous in her attentions to them, &c. All these circumstances combine to sway the unfortunate parents or friends of the invalid, and the still more unfortunate invalid himself. "It will not do," say they, "to offend our doctor, by using other remedies, or seeking other counsel, than his." Thus, notwithstanding his ill success, and his most injurious prescriptions, the next poor victim is placed in his hands; and he, not in the least daunted by his failure hitherto to even mitigate suffering, to say nothing of curing the disease, again prescribes the same remedies, which are again followed by the same fatal results. I have repeatedly witnessed whole families, and even an extensive circle of relatives, thus conducted, one after another, to the grave, by the same physician, without one serious effort having been made to escape from this terrible professional thraldom. When, as it not unfrequently happens, the physician is himself a *relative* of the family in which the destroyer has appeared, this thraldom is still more hopeless. Perhaps consumption lays its withering hand, in succession, upon his wife and all his children—perhaps on his mother or father, and his brothers and sisters. Without a thought of appealing to any other authority, or that medicine has any resources which their relative and physician does not commend, they all submit to the same treatment, and all sink down, one after the other, under the same hand. If a new remedy, or a new physician, is, by any possibility, proposed, the first step is to lay the matter before the *family physician*,—the very man who has conducted this long procession to untimely graves; and he is formally asked his opinion upon the proposed change! On any subject, except medicine, such a thing as asking a man to deny all his previous assertions, ignore all his previous reasonings, and confess that the whole course of procedure, which he has been pursuing, has been a great and fatal *blunder*, would be simply ridiculous. If your blacksmith had a favorite plan of shoeing horses, by which he had ruined the feet of all your horses, and those of all your neighbors, would you, before going to another smith, call on him for his opinion upon the merits of his rival, and his rival's mode of horseshoeing; especially if he were to confess, at the outset, that he knew nothing of that mode, and could not practise it? If you should do so foolish a thing, would you not expect, as a matter of course, his answer to

be, that no man could shoe horses better than himself, and that his rival's "system" was a *humbug?* But such a folly is perpetrated every day, in consulting the family physician about an abandonment of his practice, and the employment of a new one, for lung complaints. What is worthy of note is, that this folly is most frequently witnessed in what are termed the "upper circles,"—among the wealthy and fashionable, and even among those distinguished for refinement and education, where we might reasonably look for more good sense.

In December, 1847, I was waited upon by a young gentleman of wealth, education, and high personal respectability, for consultation on disease of his lungs. I felt confident, after a careful examination of his lungs, that he might be relieved, and, perhaps, permanently cured; at all events, that his life might be prolonged for years. After giving my opinion, he said: "I will go round to my uncle's residence, where I am now staying, and consult their family physician. He visits my uncle's son there every day, who is in consumption." And he added: "Uncle has lost six of his children by consumption. Aunt died of it, and the son, who is now sick, is the last of the family, except uncle. This doctor has attended them all, and he can tell all about what I should do." In just ninety days after this, I received a letter from the young man, dated from his bedchamber, at Coxsackie, N. Y., a town bordering on the Hudson River, saying that he was now anxious to try my remedies, and would do all that I might prescribe. He begged that I would send him some medicine, saying that his brother, then in New York, would call and get it. The tone of his letter indicated an awakening to a sense of the greatest danger. His brother called and informed me that he was going to Coxsackie, and would carry such remedies as I might please to send. I told him that, in all human probability, his brother would die before his arrival at Coxsackie; but I added, I would send some medicines, which he might return, as his brother would never use them; that I would do so, that there might not be evinced the least unkindness on my part. The second day after this, he arrived at his father's, at six o'clock in the morning, but only to witness his brother's death, at twelve o'clock that day.

Fifteen months afterwards, I was called from my consultation room, which was on the second floor of my house, and requested to go down to the reception room, on the first floor, to see a young

gentleman who was very sick, and wholly unable to ascend the stairs. I there found a young man almost in the article of death. I can never forget his anxious, despairing expression, and his blue, pallid, corpse-like countenance. A moment's examination of his chest and lungs, told too plainly that he was near his end. His mother stood by, and anxiously strove to reanimate him. I asked his father to my consulting-room, and in a few words explained to him that his son would live but a very short time.

"Well," said he, "it is God's will. This is the last child I have. You will, perhaps, recollect that his brother consulted you before he died."

The idea now flashed upon me, that this was the identical young man who, apparently in perfect health, had called on me fifteen months before to obtain relief for his brother, and whom I had, at the time, earnestly admonished, that if he were taken ill, or experienced any consumptive symptoms, not to disregard them, or delay for one hour applying to me. Such was the fact; but the admonition had been in vain.

His father, too, had seen all his children fall, one after another, victims to consumption. He had had the most impressive lessons often repeated, both of the danger of delay, and the worthlessness, in this disease, of the treatment under which they had died. He knew, too, where relief could be had. But all these lessons had been thrown away. I said to him: "Is it possible that you can ever visit the graves of your children with a clear conscience? Why have you stood passively by and seen them submitted, successively, to the hands of a physician who told you in the beginning that he could not save them, but could only hand them down to the grave on an easier path? Why have you made no effort to secure them effectual help, until help has been impossible?" He could not reply; and I do not wish again to witness such a scene as that parent's sorrow and regret —in truth, I may say, *remorse.*

On the subject of consumption, it does seem to me that in multitudes of people all common sense is utterly repudiated, all experience thrown away, and a most insane folly allowed to triumph with the invalid and his friends. But what shall we say of the physician, who, losing forty-nine cases under the same treatment, will seize upon the fiftieth, and contend most obstinately for the privilege and the right to exhibit, in this fiftieth case, the same remedies which he has seen

to fail in the forty-nine, and which he never knew to succeed in one, —often failing even to mitigate a single symptom?

I will not pursue this painful subject any farther; nor need I add that in many of its details, and in thousands and tens of thousands of examples, credulity itself would be shocked if the whole truth were exhibited; nor that the treatment of lung disease, not only by a great many empirics, but also by a multitude of the most eminent, learned, and legitimate of regular physicians, so called, could be proven to be the vilest charlatanism that ever scourged mankind.

TREATMENT OF BRONCHIAL TUBERCULAR CONSUMPTION.

In the treatment of bronchial tubercular consumption, the most hearty and confidential co-operation is required between the medical adviser and the patient. It is no common enemy with which we have to deal; it is a deadly foe, whose blows are aimed at the citadel of life, and whose poisonous breath vitiates and blights the vital forces; one which rapidly deprives the system of its recuperative powers, and its resisting capability, as I have heretofore stated. We shall find, in nearly all cases, the symmetry of the person impaired, some organs of the body more or less displaced, and the patient emaciated. When the disease is in an advanced stage, we may find tubercles in the lungs, more or less developed,—either in a crude state, or inflamed, or softening, or already softened, or dissolved, presenting ulcerated surfaces, from which pus is being discharged, and also absorbed into the system. In these features of the disease, we may find most clearly indicated the treatment to be pursued. Our path is perfectly plain and obvious. We should, as an object of the first importance, aim to give perfect symmetry to the person—correct the stoop of the shoulders, expand and enlarge the chest, and restore whatever organs are displaced to their original and natural position. Then measures should be taken to purify and enrich the blood, to impart activity and vigor to every organ and function of the body, to raise up the general strength, to rally the recuperative powers, to subdue every accompanying disease, and to remove every cause that can derange the nervous system of the patient, give him pain or annoyance, or depress his spirits. To secure these ends is not usually impossible; and when secured, in conjunction with appropriate *medicinal* remedies, this disease may be conquered, the skin disease in the throat

may be cured, tuberculous deposits removed, both tuberculous and cankerous ulcers healed, and the lungs, as well as the whole system, led back gently, and without shock or violence, to complete health.

Having thus, very briefly, indicated the enemies to be encountered, and the objects to be aimed at in conquering them, I will proceed to give an outline of my own practice in bronchial tubercular consumption; postponing, however, to the second volume of this work, a statement, with prescriptions and formulas, of the various medicinal remedies employed by me.

MECHANICAL REMEDIES.

To restore symmetry to the chest, and cause its expansion, I put upon my patients shoulder-braces, which support the shoulders in their natural positions, and keep their weight off the chest. To assist in expanding the lungs, I give them an inhaling-tube, by the aid of which air is gently forced into every portion of the lungs, and brought in contact with all the ulcerated surfaces. This is usually effective in opening the congested portions, unfolding those parts which are collapsed or folded up, and gradually detaching all the adhesions that may have taken place. To give strength to the abdominal viscera and to the diaphragm—the true floor of the lungs—and to relieve any weakness of the small of the back that may exist, I employ a perfectly fitting, and properly constructed abdominal supporter.

BATHING.

I usually advise bathing daily. The object to be secured by the bath is two-fold:—first, a condition of the skin, in which the perspiration is free and unobstructed, with a determination of the blood to the surface, thus guarding the lungs and other vital organs against being unduly congested; and, second, an invigorating, healthful influence upon the nervous system. Usually, only simple pure water is required for an effective bath. There are conditions, however, in which salt and water, alcohol and water, pure alcohol, soda, or pearl-ash and water, or soap and water, are indicated; the particular element to be used depending upon the state or peculiarity of the patient. Persons who are tolerably robust, may usually bathe in *cold*

water. Where, however, the patient is much debilitated or emaciated, where the circulation is slow, and the vital powers feeble, and he has not been accustomed to bathing, he should commence bathing with warm or tepid water, gradually lowering the temperature day by day, until he can use his bath the temperature of the air in his room, or even colder. The thing to be guarded against is feeling chilly or cold after the bath. The patient need never fear a cold bath so long as there is a complete reaction to the surface, and he feels warm and comfortable after it. To promote these ends, he is to rub the whole surface smartly with a harsh towel, flesh-brush, or hair-mitten, both before and after applying the water. When able to do so, he is to take some brisk exercise immediately after bathing, which will induce a lively circulation of the blood, determine it to the surface, and increase the flow of perspiration. I do not, except in special cases, recommend bathing by immersing the body in water. There are instances where immersing the patient in a warm or hot bath, is called for; but in ordinary cases, and for general periodical bathing, the application of water, or whatever else is used, by simple ablution, is much the better plan; in fact, the only one that should be adopted. The whole person is first to be rubbed briskly with a rough towel, until the skin is red and a warm glow is felt over the whole surface; then, with a sponge or cloth, the body is to be washed rapidly, wiped dry, and rubbed again with a coarse towel. In this mode very delicate persons can bathe in quite cold water without unpleasant sensations, and with great benefit. The bathing should be performed in a room sufficiently warm not to cause a chill. When the patient is very delicate, I use great caution, commencing with warm water, and then gradually accustoming him, or her, to the use of pure cold water, using every precaution to prevent taking cold. In no case do I employ cold ablutions under such circumstances as would greatly chill the patient; as this would tend to reduce and weaken him, in place of restoring and elevating his strength.

ACCOMPANYING DISORDERS.

It is rarely the case that disease of the lungs or throat exists unaccompanied by some such derangement, perhaps positive disease, of other organs or parts of the system, as calls for remedies addressed directly to them. We may find dyspepsia, often in an aggravated,

distressing form,—disorder of the liver, palpitation of the heart, great nervous irritability, deranged circulation, catarrh in the head, rheumatism, some form of external humor or skin disease, obstinate constipation, or chronic diarrhœa, hemorrhoids, uterine or urinal disturbances, or some other independent form of disease, complicated with the pulmonary affection. It is true that these may exist as the consequences, to a greater or less extent, of the disease in the lungs. But it is equally true that they may be present as independent disorders, aggravating, if not causing, lung disease; and, so long as they are unsubdued, they render the cure of the latter well-nigh impossible. Whether they are related to the disease in the pulmonary organs, as cause or effect, or not related to it at all, they demand, and I always give them, the most careful attention. Prompt and effective measures and remedies are used to cure them, and raise the whole system and every organ to the highest possible state of health.

PURIFYING THE BLOOD.

While mechanical aids and external appliances are being employed to correct all departures from perfect symmetry of the person, to give full expansion to the chest, and capacity and strength to the lungs, to secure the complete and uninterrupted performance, by the skin, of its proper function, and to give tone and vigor to the nerves; while, also, the patient is placed, if possible, in a healthy location, where the climate is moderately mild, and the air pure, clear, and bright,—where he has cheerful society and light, pleasant employment, diversified by healthful, agreeable recreations,—his diet to be good, nutritious, easily digestible, and supporting; and while all accompanying disorders are properly treated, I direct and concentrate all these measures, and the whole resources of medicine, against the fortress of the principal enemy. This is found in the *blood and fluids of the system.* Here is really the seat of disorder. The blood must be purified, enriched, and restored to its original condition of purity and completeness in all the healthy elements of life.

As I have before said, bronchitis is a true skin disease on the lining membrane of the air-tubes and cells of the lungs and throat; and this skin disease is nothing more nor less than the local development or outbreaking of a poison, or impurity, or imperfection in the blood. In bronchial tubercular consumption we have this poisonous,

active enemy as one of the principal agencies in the disease. We have with it, it is true, that *negative* agency, *tuberculosis*, resulting from the mere absence of vitality and vigor. But it should be remembered that the consequences of this prostration of the vital forces of the system are felt first in the *fluids* of the system: these are depraved and corrupted by imperfect digestion and nutrition, and the retention in them of waste and worn-out dead matter. Thus it will be seen, that we find both of the destructive agencies of this disease—bronchial tubercular consumption—making their appearance in the blood; and it is here the physician must attack it if he would do it successfully. Indeed—as will more fully appear hereafter—it is true of every variety of consumption, wherever originating, that it has its seat in the blood; with the exception of ulceration or decay of the lungs, that may result from mechanical injuries. In all its forms, it is a disease which has its seat in the deepest foundations of the constitution. It results from poison mingled with the very pabulum of life; and we cannot cure consumption unless we thoroughly purify its poisonous fountain. No ulcers will heal,—no skin disease, whether upon the surface of the body, or upon the mucous membranes of the lungs or air-passages,—no humor, whether on the skin, the stomach, bowels, kidneys, uterus, bladder, or elsewhere, can possibly be cured unless the blood be purified.

When we reflect that disease is an accidental change from a natural to an unnatural state, we cannot possibly conceive of any mode by which it can be produced—aside from mechanical injuries, the result of violence in some form—except through the agency of the circulating fluids of the body, by a poison infused into them, or by the diminution or increase to excess of some of their elements. When this is done, we can see that nutrition may become imperfect or altogether interrupted, and the whole system thrown into confusion, disorder, and a condition of decay.

We find in nature the most exquisite and perfect adaptation of many elements to our constitution. For example, pure water, to the tongue, palate, stomach, bowels, kidneys, to the surface of the body, and to the eye itself, is found to be perfectly adapted and agreeable, producing no irritation, nor any unpleasant effect whatever. Now drop into this water some foreign ingredient, such as lead, iron, arsenic, copper, salts, sulphur, baryta, zinc, made soluble by combination with some other agent, or any decoction of the

poisonous woods or plants,—then this fluid may become deleterious, poisonous—irritating to the eyes, bowels, kidneys, stomach, lungs, and skin, of course proportionate to the extent and character of the foreign matter incorporated with it. Again, the air in its constitution is perfectly adapted to man; it is the natural food for the lungs; it is life-bestowing, and perfectly and sweetly adapted to every part of the human system with which it is designed to come in contact, and perfectly compatible with the sensibility of every organ. It is floating around us, and in it we are constantly immersed;—a ponderous body itself, yet its weight is perfectly adjusted to our condition, so that we are constantly supported by it. In fact, it is truly impossible to contemplate the atmosphere and its adaptation to man, and not conclude that the same Mind designed them both. But change the weight of the atmosphere, or infuse into its composition any foreign material whatever—any of the minerals, vapors, or miasmatic gases—and it becomes a ready vehicle for conveying the most subtle and dangerous poisons to every part of the human system: and such poisons do, in fact, exist at times in the air, and are fruitful sources of disease and death. Yet, however great the skill of the chemist, however refined and elaborate and delicate the researches by the most profound philosophers, they may not be able to detect these poisons in it, or the least apparent difference in the constitution of the atmosphere thus loaded with the agencies of death, and that which is perfectly pure. Thus the quantity of these adulterations must be exceedingly minute; still, their effects are so palpable, and so widely and universally known to produce disease, that no person pretends to deny them. Now, all these remarks in regard to air and water, may, with the same force and truth, be applied to the blood. The blood, as it flows through the system, equably, actively, and healthfully, is a mild, bland, homogeneous fluid, carrying with it all the materials for nutrition, and the elements of force and strength. It is perfectly compatible with the sensibilities of every tissue, organ, and fibre of the human system, from the brain in its youngest and most sensitive state, to the most delicate, sentient nerves—the most complicated and exquisite organs—the eye, the ear, the palate—everywhere and in every part bestowing only vigor, health, strength, and sustenance. But if any foreign matter or agent whatever, whether it be mineral, animal, vegetable, or atmospheric, be infused into it, then its charac-

ter is changed, and what was before so truly and perfectly adapted to the whole system, now becomes injurious and mischievous. As the elements that go to form the various organs and textures of the human body, such as the bones, muscles, tendons, ligaments, membranes, fat, hair, nails, &c., must be very diverse, it may, and no doubt does, often occur that some one of these constituents comes to exist in excess, or is diminished, or is perhaps taken out of the blood altogether. In such cases, where the harmonious proportions of the blood are thus disturbed, as well as when any foreign or poisonous substance is introduced into it, its adaptation to its natural purpose is destroyed: it becomes too greatly or too little stimulating —not sufficiently nutritious, or too highly so: instead of supporting and nourishing the system, it is incapable of either, and irritates, scorches, and diseases. The extent to which the blood may thus become the medium of mischief, will depend upon the kind and degree of poison with which it is charged, or the extent of change that has taken place in its constituent elements and natural composition.

The great Author of our being, while he has endowed the human system with powers of self-reparation, has also endowed it with the powers of self-preservation, and the faculty of eliminating and separating poisonous or waste matter from the blood, and throwing it out of the system. But if there is a failure to do this, and it is retained, there is given to the system the power of locating these poisons in those parts of the body where they will be the least injurious, such as the skin, the external surfaces of the body, or in some of the more hardy of the internal organs, &c. Hence all the varieties of disease in the skin, such as tetter, the various rashes, scald head, salt-rheum, boils, carbuncles, cancer, &c., and all the varieties of tumor; and I have no doubt that the difference in character and location of these various humors, depends upon differences in the poisons which produce them. Some seek the scalp, others the hands, others the face, others the body or limbs, &c.; some spread over a great part of the surface, others concentrate in one position; some appear only in the eyelids and in the eyes, producing partial or total blindness; some in the internal ear, causing deafness; some in one, and some in another part of the body. No portion of the body is exempt from their invasion. Poison in the blood is not a single, uniform element in all cases; there is a great variety, and the different varieties exhibit themselves in this diversity of manifestation—modes

of development and difference in location. Hence no one remedy, or specific purifier, for the blood, has ever been discovered.

In some cases, deterioration of the blood, as I have said, takes place from an apparent loss, or excess, of some of its constituents. A most noticeable instance of this is found in the disease called *scurvy;* where the blood, which becomes so changed as to disorganize large portions of the body, and cause extensive ulceration, is restored to a healthy state, and its loss or redundancy of constituents corrected, by even a few days of proper diet and medication, when the ulcerated parts will rapidly heal. There is no doubt that the location of any of these poisons upon any one part of the system is not a matter of accident, but that the poison has an affinity for the part to which it determines. Sore throat, which is often among the first symptoms of bronchial tubercular consumption, is no doubt produced by a particular poison in the blood: and although the internal organization of the throat is so susceptible to impressions from applications to the surfaces, the parts being highly vascular and absorbent, even spongy—and although it is so easily reached for the purpose of making applications of any medicines the physician wishes to employ, yet it is found impossible, in a vast many cases, to cure the disease—a simple sore throat—without employing remedies suited to purify and renovate the blood, and rally the general system.

The medicinal remedies—embracing a wide range in numbers and varieties—employed in my practice for purifying the fluids of the system, and affecting the general condition, and which I believe are indispensably necessary in the cure of consumption, will be fully discussed in the second part of this work, to appear in a separate volume. In relation to them, I will here only observe, it is a remarkable fact that any medicinal agent which is found to be effective in curing, subduing, or alleviating cough, or any of the various forms of lung disease, will also be found an effective remedy for some form of skin disease, when applied externally. This remark will hold true of all the narcotics, the expectorants, the sedatives, the tonics, the terebinthines, &c., used for the lungs. Indeed, I do not know an exception to the rule.

MANAGEMENT OF THE COUGH.

While it is unwise to employ any very active measures to suppress or stop a cough—which is only a sign or consequence of disease, not

a disease itself—still, where it is constant and harassing, indicating great irritation of the lungs, or where it is attended by profuse and exhaustive expectoration, I employ remedies to moderate and control it. When the lungs are much congested, I strive to unload them by both equalizing the circulation and gently stimulating their secretions. As a general rule, however, I seek to diminish rather than increase the mucous discharge from the lungs, as such discharge is always exhausting to the patient, and should be avoided if possible. I do not, therefore, as a general practice, employ to any considerable extent powerful expectorants, preferring that there shall be as little discharge as possible from the mucous surfaces of the lungs and throat. I find that I can, in a great measure, avoid the necessity of this discharge through these organs, by directing the secretions to the other outlets of the body that are in a healthy condition. To this end, I open and stimulate to some extent all the great emunctories of the system,—the skin, kidneys, bowels, &c., thus inducing them to perform a species of vicarious labor, and expel matter which would otherwise find its way out through the pulmonary organs. In this way, prostrating expectoration and coughing may be relieved, and rest given to the lungs; while at the same time, no injury is inflicted upon the general system, which would otherwise follow a suppression of secretion in these organs.

I would further remark, and in a measure repeat, that while I would do all in my power to control the cough, I would not for a moment attempt to suppress it entirely. There are many cases where, if the cough be suppressed suddenly, and at the same time mucus and purulent matter continue to secrete in the lungs, the most serious consequences—often death—will immediately follow.

It not unfrequently occurs towards the close of life, that the cough entirely ceases; and the physician, deceived by this apparently favorable symptom, will announce that his patient is very much better; when, in fact, it is only an indication that the power of ejecting the accumulating phlegm is lost, and that the last sands of existence are running out. When the cough, from any cause, thus ceases, while secretion or ulcerous discharge continues, the lungs soon fill up, and the patient suffocates.

I once knew a gentleman (not a patient of mine), suffering with pulmonary disease, who, having been for a long time so harassed by his cough as to be unable to obtain sleep, at length took a large dose

of opium to allay his cough. The consequence was, he slept twelve hours without coughing at all; but upon awakening, he found that he had neither disposition nor power to cough, and that his lungs were much filled up. He died within two hours from the time of waking. I knew another similar case, which occurred in Portland, Me.,—that of a gentleman in consumption, who, although able still to be about and out of doors daily, suddenly lost his cough, and died in three days.

To clear the lungs of their accumulating mucus, and to promote expectoration without increasing the secretions, one of the most valuable agents is the inhaling-tube, which expands the lungs, opens their ulcerated surfaces and adhesions, overcoming the gluey tenacity of the mucus, and this in the most efficient manner, and with little exhaustion of the strength of the patient. Where the patient is strong, he may take long, full breaths, and expand and open every part of the lungs without the aid of the inhaling-tube.

SPECIAL SYMPTOMS.

Should any other organs of the body, besides the lungs, be in a state of unhealthy excitement, I endeavor to soothe and restore them to a healthy condition. Where there are *night-sweats*, I correct them, because they so greatly reduce the general strength of the patient—thus, I believe, promoting tuberculosis, instead of tending to cure, as is the theory of some. I never, of course, give diaphoretics where the skin is highly excited; nor diuretics where any symptoms of diabetis are present; nor cathartic medicine in cases of chronic diarrhœa; nor do I stimulate the liver when it already secretes too much bile. But I aim gently to bring back all the organs, as far as possible, to a natural condition, without, however, the use of violent remedies. For example,—should I find an active chronic diarrhœa, that has continued any considerable time, I would not suddenly arrest it, because the suppressed secretions might fall upon the lungs and throat, aggravating their diseases: but I would, gradually and gently, correct this abnormal condition; while at the same time I would endeavor to strengthen, invigorate, and fortify the lungs. If the appetite is poor, capricious, or inordinately craving, I would endeavor to regulate it and bring it to a healthy and natural state. If the powers of the stomach are feeble, and digestion

imperfectly performed, or if active or passive dyspepsia were present, I would do all in my power to remove this condition. If piles exist, I would take effective measures to cure them. If there were any tendency to constipation, I would at once relieve it by proper laxatives, so selected and exhibited as to stimulate the bowels to a gentle activity, without at the same time weakening them, or aggravating the costive habit. Should rheumatism appear anywhere, I would use means to remove it. If the action of the heart and circulatory system is disturbed, I would endeavor to correct it: if too active, I would reduce the excitement; if too feeble, I would increase its action: if irregularity and palpitation exist, these must also be corrected. The chills, and the fever following them, I would remove by the exhibition of appropriate remedies. Thus, by a careful attention to the condition of the patient, I endeavor to bring every organ into full and harmonious activity, and raise the state of the whole system to the highest possible condition of health.

PURE AIR—HEALTHY CLIMATE AND OCCUPATION.

Oftentimes the patient finds himself in circumstances where the air inhaled is impure, infected with miasma, impregnated with poisonous vapor, or loaded with mechanical impurities. He should strive to escape from them. As a general rule, one to which there is rarely an exception, the worst place for the consumptive is where the disease originated. This is the fact with reference to *climate*. The remark applies with still greater force to the house or the room he may have long occupied. This may become thoroughly poisonous, from the effluvia of his own breath and the exhalations from his person. Hence, in all cases where it is possible, I urge upon the patient a change of residence and climate. I induce him, if he can, to take up his residence at some distant point—the farther off, usually the better. The European may, with advantage, visit this country; and the American may be much benefited by going to Europe. The consumptive inhabitant of a warm climate may usually safely resort to a colder one. The inhabitant of a cold climate I advise to seek a new residence in a temperate region, as he is rarely benefited by going to a very warm one. The climate that is temperate, cool, dry, and bracing, over an extensive range of country, such as is found in the

middle latitudes of this country, where can be enjoyed mountain air in the summer, and the milder temperature of lower locations in winter, will be found best adapted of any that can be selected to the promotion of health, and a powerful auxiliary in the cure of lung disease. A residence in a city is oftentimes very useful in the winter season, because the patient can here take more exercise than he can usually obtain in the country.

Daguerreotypists and workers in metals,—in machine shops, founderies, &c., where injurious gases are generated, and the air is loaded with impurities,—who find their lungs diseased, should quit their employments instantly, and never return to them till the disease has been removed, and their health permanently restored. Workers in flour, cotton, or woollen mills,—grinders of cutlery, polishers of wood and metal, laboring where the air is necessarily filled with dust and minute particles of iron, wood, &c., should, when their lungs fail them, leave their work immediately, and seek pure air by a change of location and employment, until every vestige of lung disease disappears. Public speakers should abandon speaking, professional men their studies and offices, students and clerks their desks, and merchants their counting-rooms ;—all the harassing influences and depressing cares of any and every occupation should, as far as possible, be avoided, until health is obtained ; remembering that pure air is both food and medicine for the lungs, and that the importance of invigorating, healthful, out-door exercise, with a change of scene and employment, cannot well be over-estimated. Pure cold water, gushing from the hill-side fountain, is not more grateful to thirsty lips, than is sweet, fresh, pure air to the enfeebled, irritated, inflamed, or ulcerated lungs.

MEDICINAL INHALATIONS.

In some cases I employ, with apparent benefit, medicinal inhalations to act upon the inflamed, irritated, or ulcerated surfaces of the lungs and throat; but never for one moment do I think of depending upon them alone for the cure of any disease whatever, and certainly not for the cure of pulmonary consumption. The subject of medicinal inhalations will be farther noticed in another place.

DIET FOR THE CONSUMPTIVE.

No very specific rules can, with any profit, be given to the consumptive in regard to his diet. He may eat what he finds to agree with him best. Every person has his own experiences in the matter of food; and by these experiences, in the exercise of good common sense, he should be guided. Some such general rules as the following I give my consumptive patients:—Your food should be thoroughly nutritious, digestible, well-cooked, and taken in quantities for the fullest nourishment of the system. Do not undertake to regain health by "dieting," by which is usually meant half-starving one's self. Live rather above than below your average diet when in health, if you find you can receive the food without any feelings of oppression or disturbance from it. Do not, of course, overload the stomach; and be particularly careful to refrain from food which is found, on trial, to be indigestible, or to cause heaviness or inconvenience. Late hearty suppers should be avoided by every one, and particularly by the consumptive. You should, of course, have a regard to the debilitated condition of the system—and to the fact that the digestion may be weakened, and the strength so impaired that what you once could bear, you cannot now. The food should, if possible, be made to contribute to build up the strength, and raise the depressed vitality, and nourish the system. You must understand, however, that the appetite is not always a safe guide. It may have become depraved, and crave food which you will find to be injurious. As I have said, common sense must be consulted, and your best judgment called in to guide and direct. The best test of a proper diet is the effect produced on the patient by the food while under the process of digestion. Therefore I say, eat what *pleases* you best, if it is at the same time that which *agrees* with you best. Study your own experience, and be guided by it; recollecting that your object should be to secure the greatest possible amount of healthy nourishment from your food. You will find these as safe rules as any laid down by any writer upon the subject of dietetics.

REMEDIES WHICH SHOULD BE RARELY OR NEVER USED.

There are some remedies that have been, and are still extensively used in lung diseases, by many physicians, which I rarely or never

employ; believing that, when in any manner generally resorted to, their injurious influences far outweigh all their possible advantages. I will mention a few of these remedies.

GENERAL BLOOD-LETTING.

This I rarely, if ever, advise in chronic pulmonary affections. Leeches I sometimes beneficially employ, but with great caution. When the *fashion* of blood-letting prevailed in consumptive diseases, its injurious effects became so dreadfully apparent, that it is only surprising it has not been, not merely partially, but totally abandoned. It cannot be productive of permanent benefit. Draw off nine-tenths of the blood, and the other tenth will retain the same poisons, and be wanting in the same constituents, as the whole mass; and although, by appropriate nutriment, you should restore the quantity of blood lost, that which remains after such blood-letting, becomes a leaven by which the whole mass may be converted into the same state as before any was taken from the system. Blood-letting, to a moderate extent, may be a proper remedy to arrest general or local phlethora, or congestion, or inflammation; but as a curative agent in consumption, it is not to be thought of for one moment, for it will simply reduce and prostrate the patient, without curing any of his diseases.

BLISTERING.

Vesicating or blistering the skin, to any considerable extent, I never practice;—in fact, I never like to break, in any way, the skin covering the chest or the throat; for if the lungs are weak, respiration will be very much impeded by the sores and pain thereby occasioned—especially by the application of blisters to the walls of the chest. In advanced consumption, rapid prostration often follows the use of blisters. I have witnessed great numbers of these cases, where very great harm has been done by blistering the chest; and I would most earnestly implore physicians not to employ extensive vesication. It usually produces a thousand-fold more injury than benefit.

It is but very recently that a lady called on me, whose father, an eminent physician, had applied a large blister to her chest when she was a child, which produced extensive vesication; sloughing of the

skin followed, and a terrible sore was made, which, on healing, left the whole top of the chest covered by a dreadful scar, ascending some distance up the throat, and descending half-way down the sternum, or breast-bone. One can hardly conceive a more barbarous treatment. In the case of children, no blisters should ever be applied to the chest. It is to be lamented beyond all expression, that children should have inflicted upon them the same torturing appliances that are made to the chests of healthy, robust men,—oftentimes with the same degree of strength, and the same vesicating power. They are frequently obliged to endure the torture of fly-blisters, which are kept in the shops, of equal strength, for young and old. The remarks I have made upon blistering, will apply with ten-fold force to the application of

EMETIC TARTAR.

This chemicalized mineral is one of the most savage and painful caustics known to us. Its application causes the most cruel suffering, and often, particularly in delicate subjects, it produces extensive ulcerations. I never employ it alone in any manner; and wherever I can exercise any influence whatever upon physicians, I implore them never to apply emetic tartar to the surface of the human body, unless in a state of extreme dilution. There are many cases, it is true, where a mild counter-irritant becomes very valuable. In such instances I employ some mildly stimulating appliances for a short time,—for instance, a simple mustard-poultice,—until the skin is slightly reddened and heated up. I then remove it, and apply a cloth dipped in warm water to the part, frequently changing it. In this manner can be obtained all the benefits to be derived from any form of blister, and without inflicting suffering, irritating the nervous system, deranging any function, or reducing the strength—results that are sure to follow the application of emetic tartar or fly-blisters. I also employ rubefacient and anodyne liniments, to remove pain, or to bring to the surface any humor that may be located internally beneath it. For example: in sore throat I find a rubefacient liniment to be highly useful, and, indeed, all but indispensable. I accordingly use it in almost every case.

CROTON OIL,

applied in moderate quantities to the throat or chest, in cases where there is much pain, and where the lungs and air-passages are greatly irritated, is often very useful simply to produce a slight irritation upon the surface; but it should not be so applied as to induce extensive sores. It may be allowed to produce a free, full rash upon the skin. This is sufficient to procure all the benefits of which it is capable.

MERCURY.

I never employ this mineral, in any manner or form whatever, in lung or throat diseases, except in a state of very great attenuation, and in minute quantities; and then only in some rare cases, in combination with other medicines. Some of its preparations I never employ at all in these diseases. For instance: of calomel (submuriate of mercury), I have prescribed but two grains in the last eight years' practice. It is a most injurious agent in every form of disease of the lungs. In the very early stages of true hepatic consumption, it may be exhibited in very small quantities, to excite and clear the liver, without much injury to the lungs; but as I can accomplish this end by other remedies, I never employ calomel under any circumstances where the lungs are diseased, or where I have any reason to suspect any latent tendency to tuberculosis. I never salivate the patient; and I find that mercurials of any description, introduced into the system in pulmonary diseases, are calculated to do great mischief, unless their administration is so guarded that they do not enter the general circulation. This, however, is very difficult; and the only safe course is never to give mercurials in cases of tuberculosis, or to persons predisposed to consumption. Indeed, mercury may be made to produce tubercles in the lungs, by reducing and undermining the constitution; and its effect is rapidly to soften any tubercles that may already exist in the lungs.

CHAPTER IV.

PULMONARY CONSUMPTION—ITS VARIETIES—(*Continued*).

ASTHMA.

THERE are three great diseases affecting the lungs and air-passages, universally noticed in medical books, and recognized by physicians: these are bronchitis, tubercular consumption, and asthma; and of all, the greatest puzzle is asthma. Whilst nearly every physician is ready to give a prompt exposition of bronchitis and tubercular consumption, yet, in a vast many cases, they acknowledge asthma to be a disease most difficult of explanation. Asthma occurs in persons of nearly all ages. It is noticed in children, continuing through all the periods of life—childhood, youth, manhood, and old age, may all be subjects of it.

Asthma is divided in the books into two varieties,—the *dry* or *spasmodic asthma*, and *humid asthma;* from the fact that the former is attended with little or no expectoration, while in the latter the secretion and discharge of mucus from the lungs is often very profuse. In both forms of asthma, the leading symptom is difficulty of breathing; commencing in a mild way—perhaps only a little shortness of breath upon retiring, or as the night approaches. Upon taking a slight cold it usually becomes much aggravated; and in changes of weather from heat to cold, the occurrence of easterly winds in this climate, and winds damp from the sea, and all changes from dry to wet weather, the difficulty is increased. The very approach of a change in the weather, is announced to the asthmatic patient by an aggravation of all his asthmatic symptoms; the difficulty of breathing being much increased—in some instances almost to suffocation. The disease may be slight in its early stages, but, as it progresses, becomes augmented to a terrible intensity; and the paroxysms, which were at first of only a few hours' duration, may eventually continue through the entire night, but almost always are mitigated in the morning. The patient soon finds it impossible to

lie down in bed; he assumes the sitting posture, with his head and chest bent forward, and leaning upon some supporting object. He struggles for air; and while his chest seems suffocatingly full, still he longs for more air: open windows and open doors are most grateful to him: conversation becomes almost impossible. As the night advances, his symptoms most usually mitigate, and he gradually brings himself into a reclining posture: in this state he is able to sleep for some hours. One of the most distinctive symptoms of asthma, distinguishing it clearly from tubercular or bronchial consumption, is the rapid enlargement of the chest. In tubercular consumption, the chest shrinks, especially over the lung most affected; but in asthma it rapidly enlarges, and particularly in those parts affected by the asthma.

I have seen one lung in a state of confirmed asthma, whilst the opposite lung would be in a state of tubercular consumption. In tubercular consumption, or bronchial tubercular consumption, the symptoms are always nearly uniform from day to day—no sudden changes are noticed; but in asthma, the disease is marked by paroxysms or exacerbations; the disease continuing from one hour to a number of days; and, finally, in many persons, after a period of months or years, the disease becomes entirely habitual, and each paroxysm of asthma will continue, with little or no alteration, the whole twenty-four hours,—day after day the sufferer, perhaps, not being able to lie down in bed for a whole night for months, and even years. In both kinds of asthma, at the commencement of the disease, and usually at the commencement of the recurring paroxysms, where the disease is established, we shall generally find some of the great emunctories, as the kidneys, the bowels, and skin, more or less inactive or closed; but towards the termination of the paroxysms, in dry asthma, we shall notice an increased discharge of urine and freer perspiration, or a more active movement of the bowels—more usually, increased action of the skin or kidneys. Relief usually soon follows the increased activity of these organs. In humid asthma, the paroxysms generally terminate by copious secretions of mucus in the lungs, and free expectoration; as soon as a free discharge from the lungs takes place, the terrible struggle for breath is mitigated, and the patient soon finds he can lie down and rest. This grateful relief continues, and becomes more and more complete, until the paroxysm subsides entirely. In a great number of persons, at the

termination of the asthmatic paroxysm, the inconvenience from the difficulty of breathing seems to be removed almost entirely,—only a very little weakness perhaps remaining, and they are soon found vigorously pursuing their usual occupations, when perhaps only the night before they were struggling most intensely for their breath, and apparently at the point of suffocation. In fact, it is one of the peculiarities of asthma, that very often it would seem not to impair the health or vigor, and will continue in this manner to old age; in some instances, it seems almost a passport to old age. In other cases, however, it has a debilitating effect, and by more or less accelerated advances, it crushes the constitution, overcomes the strength, and gradually passes into asthmatic consumption, or terminates in universal dropsy.

In all varieties of asthma, by proper remedies, or by the intervention of long fits of sickness, or by change of climate and residence, more or less prolonged, the patient often recovers, and is entirely cured: in him, it may never make its appearance again.

In these cases, however, after the lapse of some years without the supervention of any asthmatic symptoms, the lungs are liable to become again affected, but now usually in the form of bronchitis or tuberculosis. Neglected colds, or any cause which tends to develop bronchial irritation or tubercular deposits, are more liable to produce these diseases in persons who have once had asthma, than others; and many who have recovered from asthma, after having enjoyed years of good health, finally, for want of knowledge, or from carelessness, become subjects of true tubercular consumption, and fall victims to its aggressive assaults.

It should be remarked, that a peculiar feature of asthma, in which it differs from most other affections of the pulmonary organs, is, that it has a tendency to cause an expansion of the lungs, and very often it leaves a permanent enlargement of the chest. If, however, tuberculosis follows, the chest again contracts, and the lungs shrink, as in other cases of that disease.

WHAT ASTHMA IS.

Asthma itself is a skin disease, occupying the lining membrane of the air-passages and air-cells, and is subject to the laws of all skin diseases.

Sudden paroxysms of asthma are occasioned by sudden exacerbations of the skin disease. The dry form of asthma—the spasmodic or croupy asthma—is rarely or ever followed by secretion or expectoration. It is analogous to scaly leprosy, or ringworm, or tetter, which appear upon the surface of the body, and often continue for years, without producing any, or very little, discharge, only throwing off occasionally dry scales. These surface diseases are sometimes found in an active state, sometimes apparently almost disappearing, but always influenced greatly by the changes of the seasons, and varieties in the weather. Most of the skin diseases are worse in the spring of the year, and the close of autumn, and in early winter. Some forms of the dry skin disease are only noticed in warm weather, such as hives, prickly-heat, &c. The dry asthma seems, in most cases, to act very much like these external skin diseases, and to be governed by much the same laws. Humid asthma seems to me a true salt-rheum upon the lungs—a true eczema in all its phenomena. In all its varied symptoms—its commencement, its progress, its termination, and periods of development, like the salt-rheum, it is almost universally more aggravated at the close of the winter months, the spring, and the commencement of the cold weather; whilst in some persons, in summer, it ceases altogether. Appearing externally, it stands out, unmistakably, *salt-rheum*. It is undoubtedly the same humor, located in certain tissues of the lungs, which constitutes the well-known and well-defined humid asthma.

In some instances, asthma partakes both of the dry and humid character, showing that it is a complication of certain original skin diseases; the dry or humid asthma predominates, as the dry form of skin disease, or that attended with humid discharges, predominates in the system.

CAUSES OF ASTHMA.

Having endeavored to give a true idea of the nature of asthma, I will now notice its causes and the manner of its production; and the reader will, I think, readily anticipate some, at least, of these causes. At the very head of all, stands the suppression and driving in of all skin diseases, in whatever form they may have existed. Whenever any of these skin diseases retire from the surface of the body, and no measures are taken to purify the blood and remove the poison from the system, they will, almost invariably, determine upon

some of the internal organs. They are most likely to fall upon the lungs; and when this is the case, the effect is, in a multitude of instances, to produce asthma. The suppression of scald-head, ringworm, tetter, acne, and the drying up of old sores, will sometimes produce asthma. The infectious diseases called *exanthemata*—those skin diseases which appear upon the surface of the body in the form of rash or eruptions, as scarlet fever, measles, &c.—which sometimes affect the lungs and throat—by being imperfectly cured, and, going in upon the lungs, may produce asthma. Hence many persons date the commencement of their asthma from the close of measles or scarlet fever. Whooping cough is often followed by asthma when imperfectly cured; so also is mumps, at times, though rarely. Very frequently, asthma originates from a common cold; the poison which the cold develops—that is, the suppressed perspiration—locating itself upon the lining membrane of the lungs.

Asthma is more or less attended by congestion of the lining membrane of the lungs and throat, and seems chiefly located upon the opening into the air-cells, closing them to a greater or less extent; so that, whilst the air-cells are distended with air, ingress and egress to and from them is rendered almost impossible by this stricture upon their necks. During fits of asthma, and even while the lungs are somewhat in a state of quietude, the air-cells resemble small grapes, or little balloons distended with air to their utmost capacity. The patient struggles and pants for breath, and there is experienced a terrible sense of impending suffocation, continuing until relief is obtained, which, as I have before said, is relieved by free perspiration or increased activity of the kidneys; particularly, in humid asthma, the commencement of copious expectoration usually brings relief at once—at least, temporarily.

In consequence of this continued partial congestion of the lungs in asthma, any thing that will excite or swell these interior surfaces, or mechanically irritate them without producing expectoration, will promptly produce fits of asthma. Hence, every kind of dust is intolerable to the asthmatic. One of the most disagreeable is powdered ipecac. I have known many who would fly from the room in which this powder was exposed, upon inhaling even the slightest particle. The dust arising from feather-beds, from sweeping a floor, or winnowing grain, is terrible to the person who is inclined to asthma, and readily brings on paroxysms. In most cases of bronchitis

and pulmonary consumption, the patient dreads the cold air, and is very susceptible to its influences; but in asthma, cold air, even if filled with frost, is most grateful; and air of the purest character is sought for with the eagerness that the "hart panteth for the water-brooks;" while, at the same time, the asthmatic patient is very susceptible to cold, and takes cold very easily.

In very many asthmatics, the liver is more or less obstructed, and a sallow yellow tinge of countenance is observed. Many, or nearly all, labor also under the effects of dyspepsia and indigestion. Indeed, attacks of asthma are very readily brought on by eating any thing which disagrees with the stomach. The asthmatic is very often relieved when he can belch up great quantities of wind from the stomach. The stomach often bloats, and the patient feels a great fulness at the pit of it, which extends laterally under the short ribs, often producing colicky or temporary pains there. This fulness of the stomach often produces great oppression of the chest, and choking, suffocating sensations; at times, tickling in the throat, a peculiar numbness of the tongue, and a sensation of heat and burning in the chest, over both lungs, will be experienced. Opium, or any of its preparations, if much taken, will often produce a sense of numbness and heat in the fauces and tongue. The feet will often be very cold, and this extreme coldness will at times, and in some patients, extend to the knees. The whole surface of the body is often very cold.

In many cases, the *form* of the asthmatic becomes very striking; particularly where he is very stout, the bottom of the breast-bone and ribs will be thrown out, and the head and shoulders thrown backwards, giving a great prominence to the stomach. In other instances, especially where the patient is lean, the person is thrown forwards, the front of the chest is somewhat flattened, and is greatly enlarged in the upper part of the lungs, under the shoulder-blades—which are thrown upwards and forwards—giving the person almost the appearance of a hunchback.

The very great obstruction of the heart and arterial circulation, during the fits of asthma, very often produces derangement of the heart, especially in old age. Ossification of the coronary arteries frequently takes place. In many other subjects, excessive bleeding from the lungs will occur, which produces such a decline of the powers of life as very often leads to tubercular consumption. In other cases, the obstructions of the heart and liver become

so excessive, that, in those predisposed, universal dropsy, or dropsy of the heart and abdomen, will take place. In most of these cases, we notice a peculiar dryness and parched appearance of the body.

In asthma, if long continued, the face assumes a peculiar appearance. Deep lines are drawn upon it, and a most anxious expression is observed. During the paroxysms, it is often bloated and flushed; but on the cessation of the paroxysms, especially in cases of long continuance, the face shrinks and the deep lines and the expression of anxiety reappear. The eyes have not the pearly, glassy look seen in tubercular consumption, but they have a peculiar staring, at the same time restless, appearance. The whole expression is one of anxiety and unrest—the opposite of calmness and repose. From these indications, it is not difficult to distinguish the asthmatic at a glance.

TREATMENT OF ASTHMA.

From an experience drawn from a great number of cases, I consider asthma an exceeding curable disease. In fact, I do not recollect one in a hundred, among those I have visited, who has not permanently recovered, where the means I have prescribed have been faithfully employed.

In most cases of asthma, I employ the same kind of remedies that I recommend in the treatment of pulmonary consumption; endeavoring, during the intervals of the fits of asthma, to procure a free and equal circulation throughout the system; and, by artificially expanding the lungs and air-vessels as much as possible, to remove the strictures in the air-cells and tubes, I have before described. I also, of course, prescribe medical remedies.

Passing over these at this moment, I would say I advise, in all cases when practicable, that the patient change his location. A change of air in asthma, is often a great medicine of itself; yet the patient may change his location several times before he finds one that suits him. Some can reside in the city and enjoy excellent health; and a visit to any place in the country will be followed by an immediate attack of asthma; others cannot stay in the city even a single night without the return of these paroxysms. Some cannot live in hilly situations; others cannot endure a valley. Changes of

air from the seaboard and thickly settled portions of the country, to the newer and more sparsely settled regions, is frequently found to be attended with good effects. It seems to make no particular difference with many asthmatics, whether the change be to a climate a little warmer or a little colder, a little dryer or a little more humid. In fact, the strangest caprices are experienced by asthmatics, with reference to climate and location. Still, these caprices seem to spring from some positive and constitutional peculiarity in the disease, as it is really out of the patient's power to prevent or control them. When once the asthmatic has established himself where he can comfortably reside, and where the climate is propitious, he has done much towards the restoration of his health.

To effect a permanent cure, remedies must be directed not only to the subduing of the disease in the lungs, but also to the obviating of all the disturbed or disordered functions. For example, if obstructions exist in the functions of the kidneys, liver, stomach, bowels, or skin, these must all be corrected, so that gravel, liver complaint, indigestion, costiveness, or chronic diarrhœa, dryness of the skin, &c., shall all be thoroughly corrected. Then thorough inquiry should be made as to what previous humor or skin diseases, if any, may have been experienced by the patient; and such remedies should be selected for the purification of the blood, as the peculiar character of the humor may indicate; and these remedies should be perseveringly continued in the intervals of the spasmodic attacks, until the system is completely regulated. It should be noticed whether the asthma is of the humid or dry character, and remedies selected and adapted to the case. Should any harassing cough take place, means should be taken to mitigate it, and also to restore the general strength as far as possible. The patient should have pure air, regular exercise, daily ablutions with pure water, or salt and water, alcohol and water, and at times water impregnated with potash; all these will be found highly useful, and the condition of the patient will indicate whether the water shall be used warm, tepid, or cold. Besides the constitutional remedies, I usually advise the use of the inhaling-tube, shoulder-braces, and abdominal supporter; although in rare cases these, or some of them, may be dispensed with. With all these measures, my treatment embraces the employment, in suitable cases, of properly adapted medicinal inhalations, which I find, when the right remedies are selected, and their administration immediately

into the lungs judiciously conducted, to be, in many instances, of great assistance, both in giving immediate relief and promoting a permanent cure.

TREATMENT OF THE PATIENT DURING FITS OF ASTHMA.

When the patient perceives that an acute attack of asthma is coming on, prompt efforts should be made to arrest it. Some persons are immediately relieved by inhaling the smoke of the leaves of stramonium; others by inhaling the fumes of burning paper that has been saturated in a solution of saltpetre and dried, to be burned in the patient's room during his paroxysms. Sometimes an emetic will give relief, and especially if the stomach be loaded with indigestible food. Relief is also sometimes obtained by applying mustard-poultices, or cloths wrung from hot water, to the chest; or by strong stimulating liniment rubbed over the chest. The patient will nearly always find assistance from the exhibition of a mild cathartic; but he should never take drastic purgatives, for in many cases it is dangerous to reduce suddenly the strength of the patient. Gentle diuretics may always be given with good effects. Cases may occur in persons of robust health, and with a redundance of blood, where bleeding from the arm may be resorted to with benefit; but such cases are very rare, and such bleedings should not often be repeated, for if much employed they are apt to produce dropsy, either local or general. Expectorants may be employed freely, so as to bring about copious expectoration, when relief will, in most cases, be very soon obtained. But we must remember that these palliating remedies never prove curatives, for they are only directed to mitigate the severity of an *effect*, and do not at all reach the *cause* of the disease. The cause of the disease can only be removed and eradicated from the system by the exhibition and employment of such alteratives and antidotes as will cure the specific or peculiar poison which originates the disease. When these are properly adapted and perseveringly employed, as I have before indicated, the asthmatic paroxysms rapidly decline in frequency and severity, and become shorter in duration, until permanent health is eventually restored. When a cure is thus effected, the patient will not be disturbed by any of the causes that used to bring on his fits, and which always inspired him with terror,—such as dust, large assemblies, change of residence, &c.

He may go anywhere, live anywhere, do entirely as he pleases, except what common prudence forbids, and yet will enjoy permanent health. I have treated a vast many cases of asthma, in persons of all ages,—from children of five years to persons of seventy and eighty—of all occupations, professions, and employments,—and I have no record or knowledge of one person in a hundred who, having faithfully and judiciously followed my directions, has not permanently recovered; or, at least, been so far relieved as never to be subject to more than slight attacks, and these only at intervals of many months or years.

ASTHMATIC CONSUMPTION.

After asthma has existed for a longer or shorter period—it may be for some years—it does, in some cases, degenerate into true tubercular consumption. When this takes place, however, the disease ceases to be *asthma*—loses its asthmatic characteristics, and assumes all the symptoms of *phthisis*. Instead of expanding, the chest shrinks; the breath becomes short, but not difficult; the *wheezing* subsides; a cough, at first hard, dry, and hacking, sets in; the flesh wastes; the strength declines, and all the ordinary symptoms of tubercular consumption are presented. There are several causes which act to produce this result. A severe cold, taken by the asthmatic, settling on the lungs, and not removed, or imperfectly cured, will sometimes produce it. A poor and insufficient diet, impure air—breathed for a length of time,—long-continued, exhausting fatigue, or protracted mental suffering, may induce tuberculation in the asthmatic. So may the sudden suppression of an eruptive skin-disease, or external issue. Sometimes a change from a cold or temperate, to a warm climate, is followed by an entire disappearance of asthmatic symptoms, and the invalid imagines himself cured; but if no means have been employed to remove the disease, the apparent cure is apt to be only a fatal delusion; the disorder sooner or later reappearing, but now in the more terrible form of consumption.

It is a curious and consoling fact, that asthma, although causing a great amount of suffering, and not unfrequently proving eventually fatal, in truth realizes a vast benefit, in many cases, to the patient, by prolonging his life; for the very cause that produces asthma in one person, will produce consumption in another, unless asthma inter-

venes. I have often seen one child afflicted by asthma, while others, by the same parents, would have tubercular consumption. As a general thing, asthma, in persons not predisposed to consumption, and of robust constitution, and active, out-door occupation, will usually permit long life. But in persons of weaker constitutions, whose health or occupation confines them within-doors, or who become broken down by fevers, child-bearing and nursing, grief or mental or physical suffering of any kind, the asthmatic development often ceases, and they decline into asthmatic consumption, which, as I have said, will, towards its close, usually have all the characteristics of catarrhal tubercular consumption. The effect of asthma, as I have before remarked, is always to enlarge the chest, while the effect of pulmonary consumption is to shrink its dimensions; so that asthma, in its effects, directly antagonizes consumption, and will always do so as long as it continues asthma.

This fact should always be kept in view in treating asthma—that the lungs and chest must ever after be kept fully and perfectly expanded; otherwise the person will ultimately fall into pulmonary consumption. I have witnessed a vast number of cases of consumption, where, at some periods of life, the persons had been subjected to asthmatic breathing and turns of asthma, which had left them for a longer or shorter period, and had been followed by true consumption.

In asthmatic consumption, continued short breathing, wheezing breathing, and copious expectoration are usually present, and are very harassing to the patient. His cough is constant; that is, it occurs daily, usually most in the morning on rising from bed, and on taking much bodily exercise. He can lie down at night, as he could not always do in fits of asthma, &c.; although damp, heavy weather, and changes of weather, affect him more than in most other complaints.

CURABILITY OF ASTHMATIC CONSUMPTION.

Asthmatic consumption I have usually found more curable than any other form of consumption; or, in other words, consumption following asthma is more easily cured than any other: indeed, if treated sufficiently early, it is always curable. It is often obstinate and protracted, yielding slowly to remedies; but under a proper treatment, faithfully persevered in, the patient will find restored health.

TREATMENT OF ASTHMATIC CONSUMPTION.

For the cure of asthmatic consumption, I usually employ the inhaling-tube, shoulder-braces, and abdominal-supporter. I then give such medical remedies as I find indicated for the removal of the humor from the lungs, for alleviating the cough, purifying the blood, and building up the strength. It is in this form of consumption that certain kinds of medicinal inhalations are sometimes very useful in conjunction with constitutional remedies. By perseverance in all proper remedies, asthmatic consumption is usually curable, even in cases considered by casual observers as utterly hopeless. I never despair of a cure unless the case is truly extreme.

CHAPTER V.

PULMONARY CONSUMPTION—ITS VARIETIES—(*Continued*).

CONGESTIVE CONSUMPTION.

In nearly all its forms, consumption is very insidious in its commencement,—is marked by few or no prominent, striking symptoms. The patient experiences, perhaps, debility, loss of flesh, shortness of breath, &c.; but for these he is ready to assign various reasons, other than the true one; the most common one is a "cold" he is sure he has taken. His fears are difficult to be aroused, and he is not easily alarmed about himself, thinking the "slight derangement" he has will soon pass off without the aid of medicine, or the employment of any remedies whatever; as he is quite sure the same derangements have done so in thousands of other persons, and left no unpleasant trace behind.

In that peculiar affection of the lungs, however, which may be properly termed "congestive consumption," the case is widely different. Here the symptoms which attend the congestive stage particularly, are of so terrible a character as to fill the patient and his friends at once with the greatest alarm; and this alarm is not without reason, for the sudden death of the patient is not unfrequent.

CAUSES OF CONGESTIVE CONSUMPTION.

This disease is induced by a variety of causes;—such as overtaxing the lungs by long-continued speaking in a loud voice, addressing large assemblages of people, particularly in the open air, in very cold or in very warm weather,—addressing for many hours courts or juries; or by running rapidly for some distance, until very much exhausted; and by lifting great weights, the breath being forcibly held in the lungs at the time. In some cases, when thus overtaxed, the lungs feel as though they had been strained, and, as it were, started

from their fastenings, and really become unable to properly circulate the blood. It is also caused by taking a sudden cold, or a long-neglected cold, as well as by great exposure to the heat of the sun. Becoming greatly chilled by riding or walking in a severe wind, particularly if the wind blows full in the face; going down and remaining some time, until thoroughly chilled, into damp cold vaults or cellars; accidentally falling into, or voluntarily immersing the body in cold water, when not accustomed to it, or being drenched in a cold rain, will bring it on.

I might here mention, also, the healing up of old issues, the stopping of long-continued drains upon the system, such as bleeding piles, which have become chronic,—sudden suppression of the menses, closing up of old ulcers, and driving back of skin diseases and humors from the surface into the system, which are thus made to fall upon the lungs. Any of these causes, acting upon persons at all predisposed, will often develop congestive consumption, which presents to us the most terrible struggles for life, and the greatest examples of distress; infuses the greatest terror, and sometimes presents instances of sudden death.

VARIETIES OF CONGESTIVE CONSUMPTION.

There are two striking varieties of congestive consumption. One is characterized by great, and often continued and protracted dyspnœa, or difficulty of breathing; and the other by excessive bleeding at the lungs: both apparently proceeding from the same set of causes. In an attack where dyspnœa is the leading symptom, the patient, after some such exposure as I have described, may immediately, or it may not be until days and weeks after (for sometimes there is repeated exposure before a permanent impression is made upon the lungs), perceive a very slight shortening of breath, with a little more effort in breathing than usual, of which he, however, takes usually but little notice. This may continue for some days, when, upon the recurrence of a cold storm, or some additional exposure of himself, the difficulty of breathing becomes increased. If this takes place at night-fall, as it frequently does, the excitement of society around him may prevent his noticing it until the moment arrives for retiring to bed, when he is suddenly struck with the fact that he can breathe only with great labor. It seems to him as

though his breath was *run out*—as if he could not recall it, or fill his lungs at all. He makes every effort to relieve himself, and to recover his breath. In the premonitory symptoms of his disease, he had occasionally found himself gaping and taking long breaths; now this exercise is incessant. His extremities become cold—the blood all seeming to be driven in from the surface upon the lungs.

Other forms of lung affection are often attended with difficult breathing; but in congestive consumption, this symptom is peculiar. In pleurisy, for example, the breathing is *cut off*, as it were, before the lungs are filled, and the patient can only expand them partially. As expansion reaches the seat of the pleurisy, the act of inspiration is suddenly checked by the excessive pain which is caused. But it is not so in congestive consumption. There is no positive pain felt in the struggle to draw a full breath, but the patient cannot fill his lungs. There is a sensation as if the bottom of the lungs had receded—the distance from the top to the bottom seems interminable.

In fits of asthma, also, there occur the most terrible struggles for breath; but the patient feels as if the air were *obstructed at its entrance*, that his throat is almost closed up, and that his lungs will not receive the air. He bends himself forward, with his face upon his hands, or towards his knees, or rests forward upon the back of a chair, or upon any thing that will support his head and chest as it inclines forward, and allow him to make his best efforts to breathe; while he, and those around him, will often perceive wheezing and whistling in the breathing. In the form of congestive consumption, which we are describing, the patient does not lean forward in his struggle for his breath; he rather leans backwards, in consequence of the sense of stricture about the lower part of the chest. His breathing is an incessant effort at deep gaping. He throws his head first upon one shoulder, breathes once or twice, and then upon the other for a breath or two, and again changes his position, apparently struggling to find out in which he can most forcibly inhale the air. He experiences, with an excessive anxiety, a sense of impending suffocation; but it is from a tightness or stricture around the bottom of his chest. He is sensible that the lower part of his lungs will not fill, and feels that he must have immediate relief or die. It is the tendency of asthma usually to expand the chest: but in congestive consumption the chest is contracted; and in the commencement,

and sometimes for a long period, there is no expectoration produced, nor does the patient have any cough until the disease has been long established.

Usually the patient finds temporary relief in this disease, by putting his feet in excessively hot water, and by mustard-poultices applied to the chest,—by moderate portions of physic, and sometimes blood-letting will insure a respite; but usually after twenty-four or forty-eight hours, the distress for breath returns, and all the aggravated symptoms regain their strength: and he is again driven to his hot foot-bath, his mustard-drafts, or bleeding, which are followed by another respite, and this again by another attack. This struggle with the disease may continue for years. I have one patient, recently come under my care, who has for seven years been obliged to apply mustard-poultices to the chest three nights in every week.

During the early periods of this disease, the general strength may not be very greatly impaired; but as it advances, debility usually ensues, and the unhappy patient becomes so much reduced, very often, as to be unable to attend to his ordinary avocations. The difficulty of breathing is experienced, not only during the paroxysms I have described, but, in a diminished degree, almost all the time. After some years, and even in a much shorter period in those predisposed to phthisis, slight cough and expectoration will commence; and these will increase until all the ordinary symptoms of bronchial tubercular consumption ensue. The long-continued congestion of the lower part of the lungs, and the arrest of the circulation of blood through them, will, in those predisposed, produce extensive tuberculation of their lower portions; and in this way, if the disease is not arrested, the patient will be carried off.

In other cases, it develops into dropsical consumption, and sometimes universal dropsy, attended in its course by distressed breathing. In other cases, still, disease of the heart will take place. In fact, during the whole progress of congestive consumption, the heart is often much deranged, leading the patient and his friends to suppose that the heart may have been the primary seat of the disease. Much palpitation is also produced; yet, upon examination, no organic changes in the heart will be found to have taken place, until the disease has continued for a long time.

I would here remark, that this form of congestive consumption may be confounded by the superficial observer with spasmodic or

dry asthma. From humid asthma it differs in many respects, and may be readily distinguished by the absence of secretion, expectoration, and humid cough.

In the dry form of asthma, the patient is forced to sit up; he feels a terrible stricture and tightness about his throat and the upper part of his chest, and a strong wheezing breathing is observed as the air passes in and out of the windpipe, as if going over saw-teeth, so hoarse is the sound produced. After some hours it will most usually entirely subside, and the patient can then lie down to sleep. But in the form of congestive consumption which I am describing, the patient will often breathe nearly as well lying down as in sitting up—in a recumbent as in a horizontal position, and the breathing has seldom any hoarseness about it. Although subject to these exacerbations of the disease, occurring almost, in some cases, every night, yet, in the intervals, the short breathing only partially leaves the patient; and his friends observe that he is very frequently gaping and taking long full breaths involuntarily, or trying to do so. In dry asthma, this gaping is hardly observed at all.

TREATMENT OF CONGESTIVE CONSUMPTION WHEN CHARACTERIZED BY DIFFICULT BREATHING ONLY.

The terrible struggles for breath, which I have described as experienced by the patient in congestive consumption, arise from the fact that the lungs become engorged with blood, partially closing the air-cells and tubes, and thus excluding the air. The lungs, or rather their lining membranes, may be said to become swollen, and in this state the circulation of the blood through them is, to a greater or less extent, impeded for the time being; and, in some sudden attacks, death immediately ensues from this stagnation of the circulation, which may extend to the entire system.

Our first effort must be to relieve at once the immediately urgent symptoms, and restore the patient to a condition in which he may be able to breathe as freely as possible—to remove from him the impending danger of immediate suffocation. This may usually be done by putting his feet, up to the knees, into hot water, by giving him a moderate cathartic, by putting mustard-poultices over his chest, so as to greatly stimulate the skin covering it, &c. Diffusive stimulants may be beneficially employed, and also those medicinal agents which

act more or less directly upon the lungs themselves; such as syrup of ipecac, squills, the ethereal tincture of lobelia, or tincture of blood-root, &c. These will relax the congested spasm of the lungs, by restoring activity to the external circulation; and in a very short time the patient may lie down in bed, get himself into a perspiration, and will be soon, to a great extent, relieved—sometimes wholly so—for the time being; but he is exceedingly liable to a recurrence of the paroxysm upon another exposure to the same cause that produced the first attack. In fact, this disease is as tenacious as asthma in its continuance. As soon as the patient is relieved from the impending danger, then our whole efforts should be directed to prevent the return of these attacks, and to the permanent restoration of the lungs and the whole system from that condition in which the congestion originates. We shall, in nearly every case, find that humor exists upon the lungs, while at the same time their vital powers are greatly enfeebled. Our treatment should be conducted with a view, first, to carry off any humor that may be upon them; and next, to strengthen and restore them to activity and vigor: measures should also be employed to fully expand them. This will both tend to prevent adhesions taking place anywhere, and promote freedom of breathing. Thus a free, easy, equal circulation of the blood throughout the system will be secured. Under such a treatment, it is possible to restore the patient to sound health; and then, with moderate care, he may dismiss all fears of a return of this alarming disease.

CONGESTIVE CONSUMPTION CHARACTERIZED BY BLEEDING AT THE LUNGS.

This form of lung affection is of very frequent occurrence; and it occasions more sudden alarm and produces more terror than all the other forms of phthisis united.

The causes which produce it are the same that I have mentioned as inducing that peculiar suffocative congestion of the lungs just described. It is, however, more usually than the latter, occasioned by lifting, straining, blows on the chest, and other causes of an external character, which I have noticed at the commencement of this chapter, and need not here recapitulate.

In this disease, the hemorrhage is frequently preceded by no premonitory symptoms that attract the notice of the patient; but he is

suddenly, and without a suspicion that his lungs are disordered, seized with bleeding from the lungs. Perhaps, on awaking from sleep, towards morning, or in the dead hour of the night, he finds his mouth full of blood. Or it may be that a little tickling in the throat excites a slight cough, and he spits out something which has a new and singular taste—a little salty; the repetition of it induces him to rise from his bed and examine the nature of his expectoration, when, terrible to realize, he finds that he is *raising blood!* No pen can describe his terrors: his heart sinks within him, and he is overwhelmed with dismay and anguish.

This bleeding is, in some cases, very slight in quantity, but may continue for several days, unless arrested by appropriate remedies. In other cases it is profuse, commencing, perhaps, with a terrible gush; the blood instantly filling the throat, and passing out in a stream through the mouth, and even the nostrils, well-nigh suffocating the terrified sufferer. In this manner, the patient sometimes loses, in a few minutes, pints, perhaps quarts of blood. Still, it is very rarely the case that the patient bleeds to death in these sudden attacks of profuse bleeding; although there are, as is well known, instances where pulmonary hemorrhage is followed by immediate and fatal consequences.

After the bleeding has been stopped, and the patient relieved, it may be that he will not bleed again for some time, perhaps for years; but if he is in any degree predisposed to consumption, he is liable, sooner or later, to a return of the hemorrhage. All this while he has, perhaps, no cough whatever; except, it may be, he will cough a very little on raising the blood.

Happy would it be for every patient thus attacked, if, after his first bleeding and before it recurs again, and before any cough has been established, proper remedies and preventives could always be employed, so as permanently and radically to restore the lungs to soundness, and remove from the whole system the disturbing causes. But in a vast majority of cases, the patient has his fears allayed by false and deceptive assurances of safety. He is told, especially if the bleeding is slight, that it comes from the throat, or that there is a rupture of capillary blood-vessels in the bronchi; that, at all events, he has no cause for alarm; and that, if he will give himself a few days of rest and quiet, he will be perfectly well. All the causes which produced his first bleeding, may be still acting upon him; and no proper

measures being taken to remove or guard against them, upon the recurrence of any unusual exposure to them, congestion of the lungs again takes place, and another bleeding occurs, frequently more terrible than the first.

After a repetition of the bleeding for the second or third time, each attack greatly reducing and prostrating the patient, a cough usually sets in, and soon becomes fully established. This is soon followed by ulceration of the lungs, expectoration, loss of strength, hectic fever, night-sweats, and all the symptoms of confirmed consumption. Greater shortness of breath is apt to be experienced; and there is constant voluntary suppression of the cough, so as, if possible, to avert the occurrence of another hemorrhage.

Bleeding from the lungs, as is well known, not unfrequently takes place in purely tubercular consumption. During the softening of the tubercles, a little blood, mixed with the expectoration, is frequently seen, and sometimes a little pure blood; in exceedingly rare cases, a considerable hemorrhage may take place. But this form of bloody expectoration does not, of course, indicate congestive consumption; and the condition of the lungs in which such bleeding occurs, may be distinguished from it by the preceding cough, by the heavy green matter expectorated, and the cheesy, pus-like matter which shows the breaking down of tubercles. By an examination of the chest itself, we may, in all cases of bleeding from congestion, determine immediately the absence of tubercles and the presence of congestion only. The mode of doing this I have described in the chapter upon Auscultation.

TREATMENT OF CONGESTIVE CONSUMPTION WHEN CHARACTERIZED BY BLEEDING FROM THE LUNGS.

I have found this form of pulmonary disease, which is so alarming, and often so suddenly prostrating, to be, in most cases, very curable. The first step to be taken, on an attack of bleeding, should of course be to arrest the hemorrhage as speedily as possible; for which, perhaps, there is no remedy more specific (which is at the same time so convenient) than common salt. A table-spoonful, in a glass of water, may be taken at a single draught. This will, in most cases, immediately stop the bleeding.

If the hemorrhage is severe, the feet of the patient should be placed,

for some time, in very hot water, kept at a high temperature during the bath by the continual addition of hot water; thus drawing the blood to the lower extremities. Mustard-poultices may be applied to the chest, and opening medicines given; but never should severe cathartic medicine be given in any form of consumption. Where the patient is very robust, bleeding from the arm may be allowable; but if the patient is young, slender, or much reduced in any way, as is frequently the case with delicate ladies and persons of feeble powers, bleeding from the arm should never be advised; in place of which, one or two leeches may be applied to the chest, and usually with great benefit. The patient should be enjoined to keep himself rather quiet, and should avoid much talking and loud speaking.

In some instances, we find that bleeding will obstinately continue for many days together, despite the remedies I have indicated. When this is the case, I have frequently known the employment of full stimulants to be of great benefit. I have known a man, after bleeding for some days without any aid from medicine, entirely relieved by drinking large doses of rum. Indeed, I am inclined to think that, in a vast many cases, alcoholic stimulants, such as rum, gin, or whiskey, will stay the bleeding permanently; still, I do not often employ this class of stimulants, because, if there are ulcers in the lungs, or any tendency to ulceration, they may increase inflammation in the broken and ulcerated portions of the lungs, and thus hasten the process of destruction. I have observed that alcoholic stimulants may be more freely and safely used by old persons, than by the young or middle-aged.

After the hemorrhage has been stopped, and in this way the mental distress of the patient relieved—his fears quieted, and his whole system soothed by inspiring him with hope, and convincing him that, beyond a doubt, this form of consumption is certainly curable—we must turn our attention to such a mode of treatment as will remove and avoid a return of the congestion, and prevent inflammation, ulceration, shrinking of the lungs, and the disposition to tuberculation.

We must remember that it is all but indispensable that the circulation of the blood be equalized throughout the whole system: the fullest possible activity should be given to it in the extremities, and on the entire surface of the body, so that at no time shall there be more

blood in the lungs than their proper proportion; and they should be brought into the best possible condition, actively to circulate the blood through them. For this reason, we should avoid every cause of irritation, and all medication that can attract the blood to the lungs or detain it there. In this state the patient should be quiet, avoid loud talking and long-continued exercise of the lungs in any manner. The external surface of the chest, before and behind, should be stimulated by frictions and stimulants, such as bathing with alcohol, strong salt and water, &c. If it is noticed that there are points where pain and soreness are experienced, these should be rubbed with a stimulating or soothing liniment. If the strength is tolerably fair, a moderate quantity of blood only having been lost, and there is a tendency to heat and fever about the chest, then a wet compress, placed over the front of the chest, will be beneficial; or a wet jacket may be worn for some time over the whole chest with the greatest advantage. It may at first be worn all the time; but after a while, it should be worn only at night; always taking care, both night and day, to keep the chest perfectly warm by additional covering. To remove any mechanical causes of congestion whatever, I always advise the use of shoulder-braces, so as thoroughly to expand the chest, and take off from it the pressure of the shoulders. To obviate any weakness of the lungs, caused by falling of the bowels, and to strengthen the body and loins, I advise the constant use of an abdominal supporter, well-fitted and of proper strength. I advise the exhibition of gentle aperients, to give a little increased activity to the bowels, and produce a gentle excitement upon the muco-intestinal surfaces; thus constantly deriving from the lungs, and tending to prevent any increased mucous or purulent secretions in those organs. I also open the kidneys by gentle vegetable diuretics.

In this form and stage of consumption, I never use squills or colchicum, as they are so apt to reduce the patient and disturb the stomach—conditions I would carefully avoid. Simultaneously with thus placing the bowels and kidneys in a genial, healthy state, I exhibit gentle diaphoretics, to produce an increased activity of the skin. I advise free stimulant bathing over the whole body, such as with strong salt and water, to which there may be added with advantage a little whiskey, brandy, alcohol, or rum. Persons who are strong and robust, hardly require any thing but salt and water; but

delicate ladies, children, old persons, or patients who are from any cause greatly reduced, I direct to employ alcoholic liquors; salt may be mixed with them also. The chill should be taken off before using the bath in these cases; for if water or alcoholic liquors is applied very cold to the chest of old people, or other weakly persons, when the surface of the body is cold, and there is an almost total absence of fever, it tends to drive the blood to the interior of the body, and to still farther reduce the patient. When applied warm to the whole surface of the body, it is oftentimes exceedingly grateful and very useful, and may be employed once or twice daily, and that with the very best effect. Alkaline water, and soap and water, may be often used with good effect.

DIET.

The diet should be nutritious, the food well cooked and carefully masticated before swallowing, so as not to lie heavily upon the stomach. The stomach should not be loaded with food at any time. It is far better to eat oftener and less, than to load the stomach at any one meal. Sago gruel, tapioca, &c., are most admirable articles in these cases. I think very much of sago, and advise it before any other article of food. Let it be well cooked, and boiled with sufficient water to make a gruel of the consistency of cream, and sweetened well with the best refined sugar. Of this the patient may eat freely; it will benefit and strengthen him greatly, without being liable to produce any unpleasant consequences. As his strength increases, he may eat stale bread and good butter, soft boiled eggs, broiled lamb, broiled mutton, beef or poultry, and almost any description of game, such as venison, hare, rabbit, &c.; and all land-birds may be eaten, and usually with benefit, when plainly cooked. Clams, stewed, are excellent; of which, the broth and soft parts only he will find most digestible. He should, however, partake sparingly of meat, and other solid food. Greasy food and rich pastry—sour, unripe fruit, of all kinds, should be carefully avoided; and most fruit should be well cooked before eating. Meat should be perfectly tender and well cooked, yet so prepared as to preserve all its juices. Dry toast is excellent.

A great deal of good sense and judgment can be displayed in the choice of food, both in the quantity and in the quality. Moderate

abstemiousness should be the general rule. Never indulge in heavy, hearty meals, as this will very often bring on a renewal of the bleeding.

HYGIENIC TREATMENT.

Four or five days after the bleeding has been stopped by the means heretofore recommended, I advise the patient that he may begin gently to excite his lungs by taking long, full breaths, commencing gently and gradually. Unless the weather is very severe, he may ride out; and when out in the open air, may very gently expand his lungs by deep breathing, repeating his efforts, and gradually increasing them until he can fully and freely inflate and bring out every portion of the chest. After riding a few days, he may commence moderate walking; varying, moderating, or increasing his exercises, as he can bear them. For ladies and children, jumping the rope and dancing, when practised moderately, and not continued until there is much exhaustion, are happy and healthful exercises. The patient should carefully avoid facing cold winds, and every situation where he will be greatly heated or greatly chilled. He should always preserve an even temperature throughout the body, by wearing flannel and suitable clothing in all seasons. The room where he sleeps or sits, should also be kept at an even temperature. He should never allow himself to be chilled during the hours of sleep. All large assemblages, crowded rooms, night meetings, attending church when it is very hot or very cold, or where there is danger of becoming much excited, should be avoided. All the passions should be kept in restraint, so that the system may not be unduly excited at any time. Spirituous liquors are generally injurious, and should be very sparingly, if ever, employed; although, in some cases where the patient is greatly fatigued and exhausted, a moderate amount of unadulterated, pure liquor may be taken. Exercise out of doors, change of air, journeying, change of residence and change of occupation, will usually lead to the most delightful results in the management of these cases.

Whilst bringing the digestive organs, the bowels, the kidneys, and skin into a good condition; whilst removing all pain by liniments and other external applications, and securing a full and complete expansion of the lungs, by long breathing and by the use of the inhaling-tube in those who can bear it (for remarks on Inhalation,

see my description and directions for its use in another part of this work); also correcting in females all derangements of the uterine functions, without, however, resorting to violent measures, I give suitable remedies to soothe the lungs and relieve the cough; and if any humor is present in the system, I give medicine to purify the blood, tonics, &c., &c., a full description of which will be found in the second part of this work.

CHAPTER VI.

PULMONARY CONSUMPTION—ITS VARIETIES—(*Continued*).

IMPOSTHUMOUS CONSUMPTION, OR ABSCESSES IN THE LUNGS.

This form of disease is occasionally met with, and most frequently, in those of a phlegmatic temperament—persons of full habit, plump forms, well-rounded chests, and large lungs. Still, it will be found, on examination, that when this disease occurs, though the chest is full and the lungs large, they are nevertheless not usually fully expanded. In persons of this peculiar temperament and habit of body, severe cold on the lungs, lung fever, or pneumonia, and inflammation, are sometimes followed by the formation of abscesses in the lungs: in some cases a single one—in other, a succession of them. These abscesses seem to have the nature of *boils*, located in the lungs; and so far as we can determine, develop the same characteristics that boils do upon the surface of the body; such as heat, fever, pain in some parts of the chest, inflammation more or less acute, and the gradual gathering and final discharge of large quantities of purulent matter.

In many persons who are not predisposed to consumption, and who possess good constitutions, these abscesses heal with very little difficulty; and perhaps never appear again, or only at long intervals. Of this peculiar type of persons was Dr. Franklin, who was subject to this form of pulmonary abscess, at intervals, during many years of his life. In some persons, when congestion of the lungs has taken place, of a very severe character, and especially when bleeding has accompanied the congestion, the formation of one or more large abscesses will not unfrequently follow. Sometimes in persons who have large chests, these abscesses are very extensive, and discharge a great amount of pus, mixed with blood, having every characteristic of the discharges from boils. Purulent discharges from the lungs occur, as we have seen, in other forms of consumption; but from

which, however, those proceeding from abscesses are distinguished by the latter taking place suddenly in large quantities; whereas the discharges from the vomica produced by the softening of tubercles, and consequent ulceration, are small, seldom amounting to more than one-half an ounce to an ounce at a time. Another characteristic difference is, that the abscess, after the purulent contents have been discharged, is much more apt to heal, if properly treated, than in ulceration in the lungs, and less likely to produce permanent injury to the lungs than the tuberculous vomica, or tuberculous abscess.

I will notice one other characteristic difference between vomica, resulting from tuberculous ulcerations, and the abscesses we are considering. When tuberculous deposits pass into the softening stage, they not only become themselves converted into purulent matter, but an active ulceration takes place in the pulmonary tissue in contact with them, and in which they are imbedded. There is then an actual destruction, to a greater or less extent, of the substance of the lungs, the air-cells, and air-tubes; and the purulent product of this ulceration of the pulmonary tissue, is mingled and discharged with the dissolved tubercles. If, after the matter thus formed has been discharged from the lungs, the excavation which has been made heals, it is by the formation of a smooth, impervious, semi-cartilaginous membrane lining its whole interior surface. There is no such thing as a reformation, or new growth of the destroyed lung, and a permanent cavity remains in its place. Of course, the capacity of the lungs is reduced to the extent of the portion which has been destroyed. Now, on the other hand, in the case of abscess, consisting of a collection of pus, resulting from pneumonia or other inflammation, the lung is not, to any considerable extent, destroyed. The purulent matter resulting from the inflammation, runs together to one point from the whole field of inflammation, and there displaces or pushes back upon itself the surrounding pulmonary tissue. A wound is indeed made, but no actual excavation; and as soon as the abscess "breaks," and its contents are discharged, the lung about it resumes its former condition, and thus presses the wound together, bringing its walls in contact with each other. Then, if the conditions are favorable, the wound heals; not as a cavity lined by a thick membrane, but by a cicatrix or eschar, like that left by a cut-wound in the flesh.

From this it will be seen, that imposthumous consumption is much

less destructive to the lungs than tuberculosis, and is more readily cured. In the latter, there is a much greater tendency to shrinking of the lungs. At each successive deposition and softening of tubercles, the lungs waste away irrevocably, and less and less power remains to furnish oxygen to the blood, and vital force to the system. In the former, but little of the lungs is destroyed; they more readily heal, and there is but little tendency to shrink.

I will here call attention to what should be always remembered. Destruction of the mucous membrane, lining the air-tubes or cells in any portion of the lungs, destroys the lung in that spot for all vital or useful purposes. Hence, cauterizations of the inner surface of the lungs by probangs armed with a strong solution of nitrate of silver, or any other caustic, or by inhaling caustic vapors, if such be possible, must necessarily be fatal to any part of the lung so acted upon; and if the cauterization thus effected is extensive, it must certainly destroy life, making an artificial disease equally fatal with any form of consumption whatever, and producing ten-fold more suffering.

ABSCESSES IN THE LUNGS CURABLE.

True imposthumous consumption is exceedingly curable. Indeed, if the patient is placed under favorable circumstances, he will sometimes recover without the aid of medicines. Change of season from cold to warm, change of climate, travelling, out-door exercise, &c., will usually do much for his permanent relief. But he will in all cases be greatly assisted in recovering his health by proper medical assistance, which should always be obtained if possible. Besides, this disease is often complicated with congestion of the lungs, and not unfrequently also with tubercular consumption. If, however, the individual is not highly predisposed to consumption by any family taint, he or she may reasonably hope for a perfect and permanent cure, by using remedies to renovate the constitution and fully build up the general health, and by employing suitable mechanical remedies to enlarge the chest and to keep it fully expanded; thus aiding the pulmonary medicines in bringing the vital forces of the system to such a state of strength and activity as to heal the abscess or abscesses in the lungs, and leave no disease behind them.

CHAPTER VII.

PULMONARY CONSUMPTION—ITS VARIETIES—(*Continued*).

MECHANICAL CONSUMPTION.

Cases of pulmonary consumption occasionally occur from the accidental introduction into the lungs of foreign substances; also from the secretion and deposit of stony matter and chalky formations in them, by which inflammation and extensive ulceration take place, producing in their progress pain, fever, cough, expectoration and suppuration, loss of strength, hectic fever, night-sweats, &c.; and if the persons are predisposed to consumption, the disease will often terminate fatally. I have witnessed a number of cases of this form of consumption. One remarkable case occurred in this city. The patient was the keeper of one of our hotels. He had a cough over one year, and was greatly reduced in strength, developing all the symptoms of true tubercular consumption. He despaired of recovery, and so did his friends. His cough was very severe, attended with much expectoration of purulent matter; when one morning, after a severe fit of coughing, he expectorated a piece of chalk, or what appeared to be such. It was about half an inch long, and was surrounded by purulent matter. He found immediate relief; and in a few weeks his lungs entirely healed, and he remains well to this day.

In another case which I knew, a young child accidentally drew into the throat a beech-nut, which passed down the windpipe and into the lungs. It soon produced a difficulty in breathing, and remained there for several years, causing a great deal of irritation, cough, expectoration, and finally bleeding at the lungs. Almost every year an abscess would form, and considerable quantities of purulent matter would be expectorated. Finally, pieces of the nut began to come away; and when I saw her at the end of seven years, the whole pulp of the nut had been expectorated and two triangular plates of its covering, whilst the third plate remained in the lungs.

I have not seen her for six years; but I believe that the other portion has been expectorated, and that she has perfectly recovered.

A gentleman called on me from one of the mining districts in Pennsylvania. Six weeks before, he had accidentally passed into the windpipe about one-half of a head of timothy grass, its upper or smooth end downwards. It passed into the right lung, and down its whole length, and through it to the liver, where it was when he called on me. The lung and air-passages along the whole distance traversed by the head of grass, were badly ulcerated. He had suffered most excruciating and rending pain. In a very short time, all the symptoms of true consumption were developed—cough, ulceration, expectoration of pus and blood, chills, fever, night-sweats, great hoarseness, rapid loss of flesh and strength. I administered all the remedies I thought advisable. I have not heard from him since six or eight months after he called. He was then not well, but had experienced great mitigation of his severe sufferings, and hoped ere long to be well.

TREATMENT.

In treating such cases as this (and they are not unfrequent—chalk deposits, especially, often occurring in the lungs), the patient cannot use the inhaling-tube much, but he should take long full breaths, and expand his lungs, but without straining them; should bathe freely in cold water, fortifying the lungs, and preserving the general health in the highest state of perfection—taking such remedies as will mitigate any symptoms of disease when they occur. This treatment, together with the employment of all the means recommended in this work for the prevention and cure of consumption, should be employed and faithfully persevered in; and if the person is not greatly predisposed to pulmonary disease, these foreign bodies will generally be finally expelled from the lungs, and the patient perfectly recover. But if there is predisposition to consumption, these cases become alarming, and often terminate fatally.

CHAPTER VIII.

PULMONARY CONSUMPTION—ITS VARIETIES—(*Continued*).

CEREBRAL (BRAIN) PULMONARY CONSUMPTION.

In previous chapters I have noticed those affections of the lungs and throat in which the disease appears to originate, or, at least, first to manifest itself in the pulmonary organs themselves. I now come to speak of other varieties, where these organs are not the primary seat of the disease, but fall under its power by a transfer of it to the lungs from some other organ or part of the body, or by some disturbing, prostrating, or otherwise destructive influence exerted directly upon them by disease elsewhere, or indirectly through the general system. As I have before intimated, I shall designate the pulmonary affection, appearing under such circumstances, by a name indicating the organ or part in which disease is primarily located. For example: "cerebral (brain) pulmonary consumption," "hepatic (liver) pulmonary consumption," &c. And first, I will notice cerebral pulmonary consumption.

We often meet with instances of true tubercular phthisis, which can be traced to a long-continued abnormal condition of the brain, or the membranes investing it, and in which the history and indications of the disease leave no shadow of doubt that the head has been the primary seat of the destructive agencies, which, in their mischievous influences, have finally induced tuberculous deposits in the pulmonary organs. I will describe the symptoms attending the peculiar condition of the brain which thus causes consumption. Before doing so, however, I will first notice other and more common affections of the head, with their attendant symptoms, in order that that which occasions consumption may be the more clearly distinguished.

HEADACHE—ITS VARIETIES.

While there are, as is well known, some affections of the brain that are not attended with pain in the head, pain is, nevertheless,

one of the most common consequences of cerebral disorder; and whether the substance of the brain, or the membranes surrounding and traversing it, is the seat of the pain, it is not important to my present purpose to inquire. So, also, pain in the head is a very common accompaniment of local or general disorder elsewhere: for example,—of fever, dyspepsia, biliousness, colds, &c. Indeed, "headache" is one of the commonest of complaints; showing the brain, or its coverings, to be in intimate structural and sympathetic relation with the other organs of the body. There are many varieties of headache, each possessing peculiarities distinct from the others; depending, undoubtedly, upon the character and location of the disturbing cause or influence. One of these varieties is well known under the name of

SICK-HEADACHE.

There are thousands who suffer very greatly from this distressing affection. A frequent cause of this headache is a disordered stomach; and it may arise from an excessive secretion of bile, and its presence in the stomach; from a sour stomach; from food lying undigested in the stomach, &c. It is almost always periodical in its attacks; recurring in those disposed to it at intervals of from one to four weeks, or longer, with some degree of regularity; often pursuing its victim in this way for years—perhaps for life. Its approach is usually indicated by a partial blindness—a peculiar blur before the eyes—by paleness of the countenance, cold feet and hands, and a distressing pressure about the temples, as if the head had a band of iron around it. It is usually preceded and accompanied by costiveness: in fact, those subject to this complaint generally suffer from habitual constipation. A grinding, crowding pain will often be felt nearly opposite the stomach, in the spine, between the shoulders. After the headache has continued, with more or less intensity, for a number of hours or days, it is followed by sick stomach, retching, and vomiting. Sometimes the vomiting is very free, continuing for many hours, with discharges of great quantities of bile, together with all the contents of the stomach. In some cases this form of headache is produced by gall-stones in the gall-bladder, or obstructions in the gall-duct. I knew a case of several years' standing, which was eventually cured by the discharge from the gall-bladder, and evacuation from the bowels

of over a gill of gall-stones. Free vomiting usually gives temporary relief, and not unfrequently terminates the attack. After the vomiting has continued for some time, the pain in the head subsiding, the feet becoming warm, and the circulation being restored throughout the whole system, the patient will rise from his bed, after a few hours' sleep, apparently in good health, and experience no other effect from his two or three days' illness, than perhaps a little feeling of lightness or giddiness in the head, and some fatigue and soreness from vomiting. In persons of full habit, these headaches are attended by a rush of blood to the head, and redness of the face, threatening congestion of the brain,—when active remedies are required to counteract this tendency. Persons of this habit are not, however, as subject to sick-headache as others. Those most liable to it are delicate persons—usually of a nervous-bilious temperament, and sedentary habits,—students, females, &c. The opinion is generally entertained that there is no cure for "sick-headache." But this is a great mistake. It is, in almost all cases, entirely curable; and I speak confidently, because I have had the pleasure of witnessing its permanent cure in a multitude of instances, in my own practice.

BILIOUS HEADACHE.

This disorder, which has been experienced, to a greater or less extent, by almost everybody, while it has some features in common with sick-headache, differs from it very widely in others. It occurs more frequently in males than in females. True bilious headache is attended with much more febrile excitement, and general disturbance, than sick-headache. One of the peculiar characteristics of the latter affection is, as we have seen, nausea, retching, and, finally, violent vomiting. In bilious headache, however, the stomach is rarely much affected, vomiting seldom occurs, and this is one of its most unfortunate characteristics. On account of this absence of gastric excitement, the system does not relieve itself; and unless relief is obtained by medical remedies, the complaint is often protracted, and is apt even to pass on to inflammation of the brain, or some form of bilious fever, which may continue for weeks, and perhaps terminate fatally.

In bilious headache, the pain is not confined to any particular portion of the head. Sometimes the whole brain seems to the sufferer

to be aching. At others, pain is felt more in the back of the head, or at the top, or over the eyes, in the forehead, or through the temples. The head often feels as though it would burst, from an intolerable inward pressure, and every pulsation of the heart is felt in a throb of acute pain through the temples, and other portions of the head. This throbbing is frequently most agonizing, and may be plainly seen in the temporal arteries. There is usually more or less determination of blood to the head, causing a painful pressure, a flushing of the face, and suffusion of the eyes with blood. It is accompanied by a burning heat about the head, particularly in the forehead and eyes.

This headache occurs in many men of active, out-door habits, who are greatly exposed to the sun. It is also produced by irregularity in diet, and habits of dissipation. It is very apt to follow upon any sudden outbreak of dissipation, such as occurs in the excesses of public dinners; or in eating largely of an unaccustomed diet, indigestible food, or food which does not usually agree with the person, and particularly when this imprudent eating is accompanied by the drinking of wines, acidulated liquors, &c. Where, in the "feast of reason, and the flow of soul," so called, a man forgets himself, and launches into unaccustomed, hurtful excesses, while the general system is lashed into a wild excitement, the stomach, liver, and bowels become the special victims of his folly; they are overloaded and clogged; the circulation of the blood is disturbed, and rendered sluggish; the head is congested; and though the *bon vivant* may have "a good time of it" for some hours, yet "weariness cometh in the morning." The Nemesis is close on his track. He goes from the scene of his debauch to his bed, and awakes late the next morning, from a heavy sleep, unrefreshed, stupid, and with a tremendous bilious headache. The consequences of such excesses are sometimes even more serious. I once knew an excellent and amiable physician, who, from convenient proximity to the place of voting, usually received guests on election-day. On one of these days, a middle-aged man, of vast capacity, of "enormous appetite and tremendous paunch," arrived first at the dinner-table; the other invited guests being detained some time at the place of voting. He sat down and devoured nearly the whole of a loin of veal. When the good doctor came in with his other guests, the meat had disappeared, and something less palatable had to be substituted. The doctor consoled his wife—who

was not a little indignant at the occurrence—by saying that the veal would all be paid for by the next day, as no man, however vast his capacity, could eat so much meat at one meal, and not require medical assistance within twenty-four hours. Sure enough, in the course of the succeeding night, a swift horse, covered with foam, arrived, bearing an anxious rider, who, in a few rapid words, informed the doctor that his voracious guest of the previous day was dying. It required the free use of the lancet, a full exhibition of active medicines, and several days of most assiduous attention, to save the gourmand's life. It was accomplished, however, much to the doctor's credit. Persons of a bilious or plethoric habit, must be careful how they indulge in excessive pleasures of the table, or in Bacchanalian feasts; otherwise they may have occasion to be thankful that even more disastrous consequences do not follow than severe attacks of the bilious headache I am describing. Apoplexy itself is frequently the penalty.

Bilious headache often occurs, also, in students, clergymen, lawyers, public speakers, and others, whose employments or professions require them to make great mental efforts, and which, at the same time, render them liable to suffer from indigestion, and other consequences of too little physical exercise.

I need hardly say that the correct treatment of bilious headache is known to every intelligent practitioner of medicine. Its cure is easy when the proper medical assistance is obtained. To provide the requisite remedies is the physician's duty. It is more especially the duty of us all to avoid the necessity of using remedies at all, by avoiding the causes which produce the disorder. In what has been already said, many of these causes have been pointed out, and they may be easily shunned. From all these causes, and from excesses of every kind, persons should carefully refrain; the bowels should be kept free; severe mental excitement, not balanced by brisk daily exercise, should be avoided; daily bathing should be practised; the head should be kept cool, and the feet warm. In a word, the laws of health should all be obeyed.

APOPLECTIC HEADACHE.

Nearly allied to the bilious headache, in some of its symptoms, but still differing from it in others, is that which may be properly

termed *apoplectic*. It occurs in those of a full, plethoric habit, with large chests, short necks, and full, red faces. It is produced, or at least usually attended, by a determination of blood to the head. The pain is dull and heavy, and felt most in the back part of the head. There is a sensation of fulness and pressure there, with sometimes a little stiffness of the neck. The face is red, and, in some severe cases, puffed and bloated. Where the rush of blood to the head is severe, the eyes may become suffused, and even bloodshot. It is generally attended by a more or less constipated state of the bowels, and inactivity of the skin and kidneys. There is often some palpitation of the heart; indeed, the determination of blood to the head is very frequently occasioned by an obstructed circulation of the blood in the heart, or the large blood-vessels entering the heart. This rush of blood to the head, with headache, is apt to occur in females from obstructed or otherwise disordered catamenia; particularly in those who are fleshy and of full habit. As will be inferred from the description of persons liable to this affection, it has no tendency to induce consumption. It may sometimes be attended temporarily by a congested condition of the lungs, to a greater or less extent; but the habit of body which induces this headache is antagonistic to tuberculosis. It need hardly be said, that it yields readily to a proper treatment. I will add, however, that it should never be neglected, as it is liable to result in apoplexy, fits, or a sudden stoppage of the pulsation of the heart, which may be immediately fatal.

NEURALGIC, OR RHEUMATIC HEADACHE.

This is a peculiar species of headache, resulting from a neuralgic or rheumatic affection, located in the integuments—the scalp, or membranes—covering the skull, and probably also, in some cases, involving the membranes lining the skull and investing the brain. It is attended by great heat in the head, and sharp, darting pains, not confined to any one portion, but more frequently in the back part of the head. Unlike the sick-headache, it is not attended by nausea or vomiting, nor by a sense of tightness about the temples. Nor is there any blurring of the sight experienced, neither is it periodical in its recurrence. In nearly all forms of headache, with the exception perhaps of catarrhal, the pain is increased by the presence of light and the glare of the sun; but this is observed to be much less the

case in rheumatic headache, than almost any other, with the above exception. This is not, as many mistakenly suppose, simply a local affection. Its source is to be looked for in some constitutional disturbance. There is in the system a rheumatic humor, which has determined to the head; or there is an irritated condition of the nerves, which are distributed to the investments of the skull. To cure it, reference must be had to these conditions, and remedies adapted to them. When such a treatment is employed, a cure is readily accomplished.

CATARRHAL HEADACHE.

This kind of headache is seated exclusively in the forehead, over the eyes, and in the upper, forward portion of the sides of the head. It is produced by a catarrhal humor, affecting the membrane lining, the nasal passages, and extending to the membranes investing the bones in this region. The pain which is experienced passes upwards between the layers of the frontal bones, over the eyes, or beneath the eyes, and to the cheek-bones and the forehead. The pain is usually continued and distressing; oftentimes attended by scalding, acrid, watery discharges from the eyes and nostrils, accompanied by a sense of very great tightness, of pressure and weight in the front part of the head, always increased by cloudy and thick, heavy weather, and diminished in sunshine and a clear, dry atmosphere. Catarrhal headache is easily distinguished by its location. Frequently we find it to occur with greatest severity on both sides of the root of the nose, passing up the crescent of the eyebrows, and locating between the plates of bone above them. Sometimes it extends to both temples, and occasionally it will travel along to the top of the centre of the head, over the forehead. From these peculiarities, we can easily distinguish it from almost any other form of headache. In fact, I know of no other which thus affects the root of the nose, and extends over the orbits of the eyes. I need hardly say that this disease is perfectly curable by the use of proper remedies: it is entirely within the reach of medical aid.

SUN HEADACHE.

There is an affection of the head which I have not mentioned, that is known as "sun headache." It occurs more frequently in young

persons than in those of advanced life, and is rarely experienced after the age of twenty-five years. The persons found to be most liable to it, are boys of a full habit, and a bilious nervous temperament, who are more or less exposed to the sun: still, those of delicate constitutions are not exempt from it. This headache will usually commence a little after sunrise, or at any hour from sunrise to ten o'clock, A. M., and will increase in intensity until the sun is at its meridian,—in some cases becoming almost insupportable by that hour. It will continue thus severe for some hours; then, as the sun declines, it subsides, and ceases altogether at or before sundown;—in some cases, by the middle of the afternoon. It is not usually attended by any nausea, fever, or any considerable disturbance of the general system, except that the patient is generally of a costive habit; and there is, during each day's attack, a feeling of lassitude and disinclination to move about,—every movement increasing the pain. The light and heat of the sun aggravate the distress, and the sufferer finds most ease in sitting or lying in a darkened room, in perfect quietness, away from all noise. It is a characteristic of this species of headache, that, as soon as it has passed off, with the decline of the sun, the subject of it finds himself feeling perfectly well. He even sometimes experiences, during the close of the day and evening, a peculiar exhilaration of spirits, and more than his natural degree of strength and vivacity. He sleeps well, and his appetite remains unimpaired, except for his dinner, and while the paroxysm is on. This headache will, in many cases, continue for months,—recurring thus periodically with the rise of the sun, and subsiding with its setting.

Notwithstanding this affection appears to be attended by so little gastric or biliary disturbance, it is nevertheless no doubt connected with a deranged state of the liver and digestive organs; influenced, perhaps, by a peculiar condition of the nervous system. The light and heat of the sun, acting through the nervous system, thus impressible, bring into activity the disturbing causes, existing in the digestive or biliary organs; and from the action of these causes, the circulation of the blood is impeded, and does not flow back freely from the head to the heart. The head thereby becomes unduly congested, and loaded with blood, causing the severe pain I have described.

When this peculiar headache is experienced, great relief may be obtained from the application of cold water to the head. The pa-

tient should retire to a dark, still room, and, remaining as quiet as possible, put cloths on his head wrung out of ice-cold water, which should be changed frequently. At the same time the digestion should be corrected, the nervous system strengthened, and gentle aperients employed to relieve the constipation and bilious derangement. When it has been broken up—for it seems in most cases to become, as it were, a habit of the system—its return may be prevented by avoiding much exposure to the sun and much fatigue, by regulating the diet to the standard of perfect health,—rejecting, on all occasions, every kind of indigestible food, and refraining from all excesses in eating and drinking,—by bathing the head frequently in cold water, and by keeping the bowels perfectly free.

NERVOUS HEADACHE.

There is another form of headache which is strictly of a nervous character. It occurs most frequently in persons who are debilitated and weak, especially those of a nervous bilious habit;—in delicate females, men engaged in sedentary pursuits, that are attended with much care and anxiety. It is frequently brought on by great mental efforts, or long-continued study, &c. Great bodily fatigue will induce it in some persons. Thousands of women, after a hard day's work, or when from any cause there is experienced great bodily exhaustion, particularly if attended with much mental anxiety or other excitement—such, for example, as that caused by over-exertion in the care of a sick child, anxious watching at the bedside of a sick friend, by great alarms, unpleasant news, loss of rest, &c.—will be attacked at evening or the next day with a nervous headache, accompanied by great debility and prostration, loss of appetite, and a feeling of utter inability to perform any duty whatever.

With this headache there is extreme paleness of the face, reduced heat in the system, cold feet and hands, and weakened circulation. There is a peculiar susceptibility to sound; noise is the sufferer's greatest enemy: loud talking, crying of children, the sudden slamming of doors, reports of firearms, barking of dogs, shouting of a multitude, &c., make the patient almost frantic. Nervous headache may, without the aid of much medicine, by absolute rest and perfect quietude, aided, perhaps, by a cup of coffee or tea, usually be relieved in a few hours. It is in this form of headache that, after it

has continued a few hours, the conversation and gentle voice of an interesting, entertaining, amusing friend, will, in a short time, often dispel all the trouble.

Having now noticed summarily several very common kinds of headache, each having peculiar and distinct characteristics (often, however, complicated with each other), which, while they may to a certain extent in some constitutions, by their depressing influence upon the vitality of the system, indirectly contribute towards the development of *tuberculosis*, have been alluded to here, not for that reason specially, but because the reader will be enabled thereby more distinctly to distinguish the peculiar affection of the head which is almost invariably, unless arrested, the precursor of consumption, we are now prepared to direct our attention to

THE TRUE CONSUMPTIVE HEADACHE.

This is of quite a different character from any we have been considering. It is generally located upon the top of the head, along the junction of the parietal bones, and very near their union with the occipital—that is, at the back part of the top of the head. The feeling experienced is that of a crushing weight, and hard, heavy pain. The face becomes bloodless, and the eyes are glassy, the sight being often impaired, and all objects looking dim, cold, and gloomy. The spirits sink, and every attempt at cheerfulness becomes abortive and a mockery; the courage fails, great fatigue is experienced in walking, and much weakness is felt in the knees and lower limbs. There is a disinclination to any kind of effort, and the performance of light duties seems like moving mountains. What was once only a moderate effort, seems now an herculean task. The appetite partially or wholly fails, and food loses its pleasant taste. The bowels are slow, and in females the catamenia become reduced and lessened at every recurrence. The general impression on the system is that of inactivity and great depression of life. The top of the head often feels numb and dead, and as if a heavy weight were pressing upon it. This numbness is experienced on a circumscribed space over the top of the head; and on applying the hand to the scalp on this space, it is felt to be actually cold. Sometimes there is a sensation as though this cold, numb spot did not belong to the head, but was separated from it. The pain that is experienced, is felt not merely

on the upper surface, but beneath the surface, and apparently deep in the head.

All other forms of headache have their seasons of remission; but in the true *consumptive headache*, when once it is established, there is no intermission of the distress, no moment of relief, no respite; and its unremitting, ceaseless torture seems to weigh down all the powers of life. It never ceases to be an object of constant and present notice. Whether alone or in the company of friends, in the domestic circle or the crowded assembly,—whether sleeping or waking, riding or walking, laboring or at rest—in the silence of one's own thoughts, or conversing with others,—whether listening to the notes of music or the voice of eloquence—looking upon the charms of nature or the beauties of art,—through the whole twenty-four hours—on going to bed and waking from sleep—at all times and everywhere, this relentless pain pursues its victim. Often the patient cannot obtain sleep. Hour after hour will pass in sleepless misery; and through weary, restless hours, there are heard every tick of the clock and every breath of the companion of the sufferer's couch—every noise that breaks the stillness of night.

It is not surprising that such an enemy eventually undermines the foundations of the constitution, and thoroughly prostrates the vital powers. Soon after it commences its mischievous agency, the strength declines, the patient loses flesh, all color fades from the face, and the skin has a white, deathly hue. In a little time, the breath becomes short, and the chest is found to have gradually less and less elasticity. Soon a hacking cough sets in, and then, step by step, the sufferer sinks down and dies in true tubercular consumption, attended by the ordinary symptoms of that disease. This is the usual tendency and result of the "consumptive headache," when left to take its own course, uninfluenced by proper medical interposition; and the primary location of the disorder in the brain or its investments, renders appropriate the designation of "brain pulmonary consumption" for the disease of the lungs which is finally developed.

I would remark, that after disease has become fully developed in the lungs—when the cough is established, and softening of the tubercles has commenced—the headache gradually ceases, and the sight resumes its wonted clearness; but the pearly appearance of the eyes, and the pale, shrunken face, too truly indicate the presence and progress of the destroyer.

I do not propose to detain the reader with any extended reference to the causes of this peculiar headache. There is only one that I will mention—that is, protracted mental suffering. This is a very frequent cause. The headache is found to come on after some crushing misfortune, bereavement or disappointment, from the effects of which the mind and spirits remain prostrated. I know a lady who, upon hearing of the death, by drowning at sea, of her first-born son, was taken with this consumptive headache, which continued, without any cessation, two entire years. Wives, suddenly bereft of their husbands, and young ladies upon the death or desertion of their lovers, are very often attacked by this headache, and sink into consumption.

We come now to the important question, can this species of headache be arrested and cured? And I reply, that, while it is an affection which requires the most careful attention of the physician, and skilfully adapted remedies, and while it often exhibits great obstinacy and persistence under the best treatment, it is nevertheless amenable to medical remedies. It has fallen to my lot to treat a number of cases of this disease; and I have found in every instance, where I have had the faithful and persevering co-operation of the patient, I have been enabled to do so with success, and have effected a complete cure. If the affection in the head is seasonably removed, the lungs will be saved from the destructive consequences which result to them from its protracted continuance. But, as will be readily inferred, the most careful measures must be early and constantly employed to guard the lungs from danger, especially in those at all predisposed to consumption.

CHAPTER IX.

PULMONARY CONSUMPTION—ITS VARIETIES—(*Continued*).

CATARRHAL CONSUMPTION.

The term *catarrh* is popularly applied to a peculiar disorder in the nostrils, extending, in some cases, up to the forehead, and down the nasal passage into the throat. It is, however, by no means confined to the head, but extends often to the bronchi and lungs, and there constitutes sometimes a most formidable, and, not unfrequently, fatal disease. When the lungs are involved, and the catarrh thus becomes chronic, it results often in what may be properly termed *catarrhal consumption*. This is a disease which is too often mistaken for tubercular consumption and bronchitis. Indeed, some physicians themselves make no distinction between catarrh in the throat and bronchitis, nor between catarrh in the lungs and tubercular phthisis. I regard the diseases as distinct in their origin and characters; and believe it to be very important for their successful treatment, that this distinction should be clearly understood and kept constantly in view. To aid us in distinguishing between them, I will first describe the common affection—

NASAL CATARRH, OR CORYZA.

This disease is of very frequent occurrence, and is almost always produced by a common cold, occurring oftenest in the cold and changeable season of the year. It usually begins with a partial or total stuffing up of one or both nostrils, with discharges of mucus from them, more or less profuse, and is accompanied by heat, pain, and a heavy, oppressed feeling in the forehead, and by frequent sneezing. In some cases, on taking cold, large quantities of a thin, acrid, watery liquor flow freely from the nostrils. Frequently, this acrid water flows also from the eyes; and, in such cases, the

duct or pipe which conveys the tears from the eyes to the nostrils, is apt to become closed, when the scalding tears flow over the cheeks, sometimes greatly irritating, and even excoriating the skin on which they fall. The sneezing is often extremely annoying, being very violent and continuous. The cold or influenza, if not arrested by timely aid, is apt to pass down upon the throat, and thence to the lungs, leaving the nostrils quite free until another attack. By repeated attacks, in very many instances, the disease becomes permanently located on the lining-membrane of the nostrils, where it may continue a lifetime. The patient easily takes cold, and the cold always aggravates the disease.

Nasal catarrh being located in the lining membrane of the nostrils, it is proper to designate it a true *skin disease*, excited by a *cold*. At times the inflammation, in its more advanced stage, is of a dry character, not producing much discharge; but masses of hard matter, and even scales come away. In these cases there is usually great soreness experienced in the nostrils. At other times, the disease, even after it has become chronic, is of a humid character; and the discharges from the nostrils will be very abundant,—sometimes very thin: at other times there is a thick, yellowish-white mucus or phlegm coming away, at intervals, in great masses. Nasal catarrh is always a disagreeable disease, and sometimes, in aggravated cases, it becomes dangerous. At times, it is attended with considerable fever, especially in the commencement of an attack. It very often produces much headache; frequently a dull, uneasy feeling is experienced in the forehead, back of the head, and top of the head; often a distressing feeling of heaviness is experienced at the root of the nose, which extends to the cheek-bones, sometimes preventing sleep, and always occasioning great discomfort. It soon occupies the nostrils, and often passes into the spongy portions of the skull, above the eyes, under the eyebrows, and in the forehead, producing much uneasiness, and at times most intense pain. The nostrils often become wholly or partially closed, so as to oblige the sufferer to lay in his sleep with his mouth open, causing a distressing dryness of the throat. The sense of smell is soon impaired; and, finally, in some cases, wholly lost. As the disease deepens in intensity, the spongy bones of the nose become affected and ulcerated; in some instances opening the two nostrils together, and in others even removing the bones from the roof of the mouth. In this terrible state,

and as it approaches it, it is called *ozena*. In horses we find a true malignant catarrh, called *glandes*, which is awfully contagious, and in most cases fatal. It is not only contagious to horses, but men and women may take it from horses, as I have witnessed. Nasal catarrh is, as I have before said, usually brought on by a common cold, and is always aggravated by it. One of its effects, even when not greatly aggravated, is particularly most unpleasant. I refer to the fetid, repulsive smell attending the secretions and discharges from the nose. This offensive odor repulses all who approach the sufferer. I have known husbands and wives separated by it, and loving couples driven from each other by the first blast of this stygian vapor. Oftentimes bloody scales form and are ejected, and great masses fall out through the back nasal passage into the throat, and are hawked up and expectorated. Catarrh is often noticed in children in the winter, in whom it is usually mild, only indicating a cold, which usually leaves on the return of warm weather. This disease may exist in a mild form for a great many years, without much apparent injury, and in many cases without any smell or odor being perceptible ; but, frequently, it gradually becomes a terrible disease. It often passes backwards to the throat, and finally reaches the lungs, where it becomes catarrhal consumption.

TREATMENT OF NASAL CATARRH.

When this disease exists only as a common cold, it is to be treated as such; but when it has become seated, we must treat it as a constitutional and local disease. We must give medicines to purify the blood and raise up the general standard of health. In the early stages of the disease, a change of air is most valuable. We must fortify the lungs, and by all means prevent, if possible, the catarrh leaving the nostrils and going to them, most particularly in persons predisposed to consumption. Having in a measure purified the blood, and placed the general health and strength in such a condition that we do not fear any extension of the disease to the throat or lungs, we may apply local remedies to the nostrils themselves. These remedies will, of course, differ as the catarrh is dry or humid. The remedies indicated will be fully pointed out in the second part of this work. With proper treatment, the disease is fully curable.

CATARRHAL CONSUMPTION.

Nasal catarrh I have described as a disease located upon the schneiderian membrane, extending sometimes over the whole nostrils, passing upwards into the bones of the forehead. At times, the disease becomes very malignant, breaking up and ulcerating away the spongy bones of the nose, and extending into the cavities of the cheek-bones; but this latter state is of very rare occurrence—the former is more frequent. When this malignant ulceration takes place, it is attended by great inflammation of the posterior nares, or back terminations of the nostrils. After catarrh has been very long established in the nose, it will frequently extend itself to the uvula and the curtain of the palate; it will invade the seat of the vocal organs, occupy the windpipe, and finally locate itself upon the air-passages and the lining membrane of the lungs. In some cases it will only invade one lung,—in others, both at the same time: sometimes it occupies but one nostril, in which case it is apt to extend to the lung of the same side with the affected nostril, and also to the same side of the throat. In its ravages upon the lungs themselves, it pursues the same course, and develops the same phenomena as when occupying the nostrils, with, however, the presence of other symptoms, peculiarly indicating affections of the throat, vocal organs, air-passages, and lungs.

Catarrh may be very readily, and is often confounded with bronchitis; and, under the term bronchitis, is generally implied all the varieties of superficial disease, occupying the lining membrane of the throat, the trachea, bronchi, and walls of the air-cells. But I think, as I have before said, that catarrh in the throat and lungs is a different disease from bronchitis, although they often exist together. I will endeavor to explain what these differences are, and the symptoms by which they may be distinguished.

Catarrh may occupy the nostrils, throat, air-passages, and the lungs themselves. Bronchitis only occupies the throat and air-passages, the trachea, bronchi, and air-cells. In the former, the secretions are usually more abundant than in the latter. Bronchitis is accompanied, in many cases, by a great deal of heat, dryness, and soreness of the throat; the tonsils readily swell, and remain swelled, and often become ulcerated. The vocal organs readily inflame and swell also,

and the patient becomes hoarse, and may lose his voice altogether; he may, and often does, experience much heat and burning in his chest and lungs, which is greatly aggravated by changes of weather, irregularities of diet, &c. As I have said before, it always commences in the throat or lungs; but catarrh usually commences in the nostrils, and, in a large majority of cases, it is remarkably free from pain, soreness, and suffering; still, in some rare cases, great suffering is produced, especially when the disease extends much into the forehead, between the plates of the frontal bones, when the patient will experience a sense of heat and pain and tightness there. After the disease has made its lodgment in the throat, a cough is produced; in the first instance, by simple accumulations of phlegm in the trachea, pharynx or glottis. The patient, on rising from bed, will often cough slightly, and expectorate considerable quantities of sticky, bluish mucus; in other instances it is clear as isinglass, and is often cold, and always tasteless. Oftentimes the throat is cleared by hemming and voluntary scraping in the throat, without any cough being excited. One of the peculiarities of catarrh, in which it differs from all other developments of mucous disease, is that the discharges have, in very many instances, a strong, musty, unpleasant odor. The patient will often hawk up from the throat masses of matter that have a most intolerable smell; sometimes in little balls no larger than a grain of barley, and often even smaller than this, and perfectly compact like shot, of a bluish color; upon breaking them between the fingers, they are found to emit a very offensive odor.

In catarrh, the mucus, as it is raised from the windpipe, the lungs, and throat, has often a dark, gluey character, which is not the usual characteristics of bronchial secretions, though the latter may be sometimes much like it. This bluish color and sticky character always characterize catarrh, and may accompany bronchitis.

I have known, in cases of catarrh upon the lungs, the exhalations with the breath to be so extremely offensive as to impregnate a whole room, and even a whole house. In bronchitis, this peculiarly disagreeable feature is not observed. Even the secretions from pulmonary abscesses, from softening and breaking of tubercles, as well as all forms of bronchitis, are rarely ever offensive in any degree. But when abscesses form in the liver, they may be there for a considerable length of time; and, finally, by adhesion between the lungs, pleura and liver, fistulous openings will be formed in the lungs

from the liver, through which the matter from the abscesses will be discharged into the lungs and expectorated. This matter, which is of a dark color, sometimes almost black, has a most fetid smell, which will sometimes almost force the attendants from the room. But this kind of discharge has no connection whatever with any form of catarrh, and should never be confounded with it by any person at all acquainted with the two diseases.

This catarrh of the lungs and nostrils is the disease that almost always affects children in the cold and changeable seasons of the year, producing large discharges from the nose, &c. The cough is loose and rattling, as if the windpipe was filled up with humid phlegm; the discharges are in these cases usually inodorous. Catarrh, when it involves the nostrils, throat, and air-passages, rarely excites much fever; the patient is soon weakened and wasted, but rather from the immense drain upon the system, than from any other apparent cause. In bronchitis, in the early part of the day the patient can readily clear his throat, and is troubled with no considerable quantity of phlegm or mucus, but in the latter part of the day the throat becomes dry, heated, and hoarse; and this hoarseness will rapidly come on with a change of weather from warm to cold. But in catarrh, this effect more rarely takes place,—hoarseness is not usually produced, or, if at all, very slightly indeed. In catarrh, when there is any hoarseness, the voice is much clearer in the latter part of the day and evening, than in the morning; whilst in true bronchitis, the reverse is the case,—the hoarseness being often much greater in the latter part of the day, especially in the commencement of the disease.

In bronchitis, by much talking or public speaking, the voice becomes husky—a great sensation of fatigue is experienced in the throat, which extends to the whole system, and after speaking much the patient feels greatly prostrated. But in catarrh, talking will usually clear the throat, and the voice improves by exercise, whilst little or no sensation of fatigue is experienced. Catarrh is usually slow in its progress; but bronchitis is a most aggressive disease, and steadily, and with slight intermissions, pursues its course to a fatal termination. In catarrh, the tongue seems enlarged, flabby, cold, and colorless,—lifeless in its aspect, and moist—covered more or less with a viscid mucus, or thick saliva, and is also more or less coated. This appearance extends to all parts visible on looking at

the tongue and into the throat. In bronchitis these parts are usually dry, and only in the later stages do they look cold and lifeless, when they may do so; but at the same time they may be exceedingly sore, accompanied by a cruel burning and smarting. In catarrh, swallowing is rarely ever difficult, whilst in bronchitis it is often so during the whole course of the disease, but especially towards the close. In catarrh the breath is usually free and strong, but in bronchitis it is short and feeble.

Such is pulmonary catarrh, and these are some of the symptoms by which it is discriminated from bronchitis. The treatment also is very different; as what is useful for one, is frequently incompatible with the other. During the progress of catarrhal consumption, but little fever is ever excited, and little pain is ever experienced, except in very warm weather, or upon taking cold. The patient rarely ever experiences night-sweats, or any inconvenience of the kind. The face is seldom flushed, but is more apt to be pale and sallow. Hectic fever, which occurs so often in bronchial consumption, is exceedingly rare in catarrhal consumption. The appearance of a person in catarrhal consumption, is that of debility, weakness, and feebleness. In the early stages of the disease, he will rarely experience any shortness of breath, and it is only when considerably advanced, that this symptom occurs; as his strength declines more and more, death seems to occur from filling up of the lungs by the catarrhal secretions; but in bronchial consumption, the secretions may diminish towards the close, and the patient may expire with all the symptoms of tubercular phthisis. Very few of the other organs of the body are much affected, for a long period, in the person having catarrhal consumption,—the appetite is usually good, although in some cases it may be poor. In bronchial consumption, towards the close, and even in the early periods, we often find the stomach much affected with heat, burning, and humor; and in bronchial consumption, also, the bowels are very apt to become affected, and often at an early period of the disease the patient is afflicted by a bad diarrhœa; but in catarrhal consumption this rarely or never takes place. It seems a kindly disease, that wears out the patient without inducing much pain, or much suffering of any kind. The fetid smell, noticed in the early part of the disease, almost entirely disappears in the latter stages; and then catarrh is no longer distinguished, by this feature of it, from bronchial consumption.

In catarrh, the patient often experiences great weakness about the top of the chest, under the collar-bone, which, however, does not affect his voice; but in bronchitis this weakness is felt in the throat itself, and in the vocal organs, by which the strength of the voice is immediately and greatly impaired, leading sometimes to its total loss.

From what has been said, it will be seen that *catarrhal consumption* is a disease which, although it is not perhaps the cause of as much mortality as *bronchial tubercular consumption*, and is usually more readily cured before there is any considerable destruction of the lungs, is, nevertheless, a very formidable complaint—a complaint demanding the early attention of the patient, and the most prompt and efficient medical treatment. In many instances, in its early stages, it more thoroughly masks its real character, more completely deceives its victims, and makes its approaches more insidiously than even tubercular phthisis. There are thousands who have catarrh in the head—the nostrils, the back nasal passage—or the throat, perhaps for months or years, without suspecting there is a liability that the disease may, at any time, be transferred to the lungs. Not imagining there is any danger of this, nasal catarrh is often treated in a manner directly calculated to drive the humor upon the lungs. Astringents, costics, and various other remedies, are recklessly applied locally to the nostrils and throat, designed to dry up the discharges, while no measures are taken to guard the lungs, or to provide an escape elsewhere for the suppressed poisonous secretions. This treatment may be successful in relieving the head, but too often only at the expense of the patient's life, by transferring the disease to the pulmonary organs, and developing catarrhal consumption. Never, in any case, should local applications be made for catarrh in the head or throat, unless the most efficient means are at the same time employed to protect the lungs against the disease, and expel from the system the catarrhal humor.

When the catarrhal affection invades the lungs in cases where there are already tuberculous deposits, we have that rapid process of destruction of these organs, known as *galloping* consumption. It takes place in those born of consumptive parents, or belonging to consumptive families, in whom there is a strong predisposition to pulmonary disease. Tubercles, in a crude state, may exist for years in the lungs of such persons, unknown to them, and but little im-

pairing the general health, which wait only for favorable conditions to become developed into active consumption. The natural tendency of the tubercle itself is to dissolution, and the consequent destruction of the lung in which it is deposited. And this state it generally reaches sooner or later; usually, however, by slow progress. But when catarrh attacks lungs thus tuberculated, the tubercles at once take on an active inflammation, and are speedily dissolved, causing rapid ulceration and destruction of the lungs. From these remarks, it will be seen why it is that some persons, in apparent health until taking a cold which settles on the lungs, are then so suddenly thrown into a "quick consumption," and hastened to the grave.

TREATMENT OF CATARRHAL CONSUMPTION.

In the treatment of catarrhal consumption, we should first notice the degree of progress it has already made, and the stage of development it has reached. If the catarrhal inflammation has not yet passed from the nostrils to the throat and lungs, we may hope to cure it before it does so. Here we shall again find striking differences between catarrh and bronchitis,—as catarrh requires, and will bear full stimulating remedies, whilst in bronchitis stimulating remedies are often wholly inadmissible.

We must not forget that catarrh, wherever located, is, like bronchitis, a true skin disease; and that, although we may do very much to mitigate it, and to prevent its spread and increase, yet still a permanent and radical cure can only be effected through the use of suitable constitutional antidotes to the poison which has produced the catarrhal disease. In the second part of this book will be found a copious list of formulas of remedies, adapted to the cure of catarrh in all its forms. The general treatment for catarrhal consumption is the same as in all forms of pulmonary consumption. Our efforts must be directed to elevating the standard of health as much as possible, and to strengthening and fortifying the lungs, so as to prevent the progress of disease upon them. I advise mechanical remedies, the same as in any other form of phthisis—the use of the inhaling-tube, practising full, long breathing, keeping the chest fully expanded, &c.

It is in this form of lung and throat disease, that medicinal inhalations are sometimes exceedingly useful. The throat, face, and chest

should be bathed freely in cold water every day, and even twice a day where it is convenient. In describing simple catarrh, I have indicated the manner of its cure, and the measures necessary to prevent its progress. The same treatment should be continued when it has extended to the throat and lungs.

Change of air, journeying, sea voyages, &c., often exercise a happy effect in relieving and curing catarah and catarrhal consumption.

CHAPTER X.

PULMONARY CONSUMPTION—ITS VARIETIES—(*Continued*)

PLEURITIC CONSUMPTION.

PLEURISY is of very common occurrence, and it not unfrequently is the origin of a fatal disease of the lungs, which is properly termed *pleuritic consumption.* I would here remark, that there are two varieties of pleurisy, viz., *chronic* and *acute.* The term pleurisy itself, is derived from the word *pleura*, the name given to the membrane that envelops the lungs. This membrane covers the lungs, and is then folded or reflected back, and lines the walls of the chest, or the interior surfaces of the ribs. It is a serous membrane, and constitutes a sack, closed at all points except where it is pierced by nerves and blood-vessels. Being thus in the form of a bag, it is capable of holding fluids, and it very often occurs that water is effused into it, as in dropsy of the chest, where it presses upon the lungs and enlarges the chest—the fluid being retained in the pleura, and not allowed to escape into the lungs or cavity of the chest. Now, this extensive membrane may, and often does, become diseased. When it is the subject of acute inflammation, the disease is called acute pleurisy. When this inflammation continues for a length of time, and is not completely cured, it loses its acute character, and becomes chronic—and the invalid has chronic pleurisy. So, also, chronic pleurisy may take place without being preceded by acute inflammation—the pleura becoming slowly diseased.

There are thousands of persons who are the subjects of a slow, protracted, chronic inflammation of the pleura. Of this, the most common symptom is *pain in the side.* It is true that pain in the side does not always indicate inflammation of the pleura—being caused not unfrequently by a rheumatic or some other affection of the muscles of the chest. Still, the pain of which I am speaking, more frequently than is usually supposed, proceeds from a low chronic inflammation of the membrane enveloping the lungs and lining the

chest; and this pain, long continued, is very often the precursor of consumption. Indeed, it is proverbial that, with persons at all predisposed to pulmonary disease, pain in the side is one of the very first indications of the approach of the destroyer. It frequently occurs in young persons—particularly those at school, sedentary people, ladies who sit and sew much, those who at work or study, or for any purpose, sit in a confined, stooping position. Cold feet, exposure to damp and chilling winds, or taking cold in any way, will sometimes produce, and always aggravate it. Although this pain may not in every case indicate the approach of serious disease, still it ought always to excite sufficient apprehension to lead the patient to take the necessary measures to remove it as quickly as possible. It should never be neglected. If it proceed from inflammation of the pleura, the probability, nay, almost certainty, is that, sooner or later, pulmonary consumption will be developed, unless the inflammation is subdued and the pain removed. It should excite alarm for another reason: it may indicate that tuberculation has already commenced in the lungs—the disturbing influence of which has been communicated to the membrane surrounding the lungs. This is most usually the origin of *pain in the side* in those who belong to consumptive families, and are thus hereditarily predisposed to consumption; and we meet with multitudes of these cases. When this pain is experienced by such a person, a most careful examination of the lungs should at once be made by a skilful physician, and not an hour should be lost in promptly adopting means to arrest the disease.

I have said pain in the side may proceed from some affection located in the walls of the chest. Sometimes the muscles external to the ribs is the seat of the disorder; more frequently, however, those between the ribs, called the *intercostal* muscles. When the pain proceeds from this source, it is not as alarming as when caused by a disordered state of the pleura. Still, it is hazardous to permit it to continue for any length of time, particularly in those in the slightest degree predisposed to consumption. As any one may perceive, it interferes with respiration, and thus tends to contract the chest. Persons suffering this pain, find that a long, full breath increases it. Instinctively, therefore, the breath is shortened, and there is a constant effort to breathe as little as possible. Thus the lungs tend to become shrunken, and the chest contracted; a stricture and sense of tightness across the top of the chest is soon felt, and respiration

becomes habitually short and feeble. In such persons we notice a peculiar habit of frequent sighing, with a kind of jerking or catching inspiration of the breath. Of course, this state of things tends strongly to develop positive disease in the lungs.

I ought to mention here one peculiarity of this pain in the side, which is very apt to mislead and deceive both the physician and patient. I refer to the fact that it very frequently occurs that pain is felt in one side, while disease appears in the lung on the opposite side—the lung on the side where the pain is felt, remaining for a long time sound. Disease of the lungs is very apt to be looked for, by the examining physician, where the pain is; and not found there, he may conclude none exists. In persons predisposed to consumption, pain very often will commence in the left side, and will continue there with considerable severity for a length of time—perhaps a number of years, attended at first only by shortness of breath, it may be; but finally a cough sets in, with more or less expectoration—the patient passing gradually through all the earlier symptoms to those of seated tubercular consumption. From the pain being in the left side, the physician, patient, and friends are led to conclude, as I have said, that the pulmonary disease is in the left lung; whereas, in a large majority of cases, the tubercular deposits will be found to commence in the upper part of the right lung, and *vice versâ* when the pain has long been in the right side. It is not difficult, I think, to explain this peculiarity. The cause of pulmonary disease, which I have in previous pages described as existing in the blood and fluids of the system, becomes located *in the lung* itself, on one side of the chest, while it expends its force in the membrane and investments of the lung on the other side. These membranes and the walls of the chest, being largely furnished with nerves, are highly susceptible to pain; while the structure of the lung is such that it may be entirely destroyed by disease, and yet little pain be experienced. But whether this explanation is correct or not, the fact is undeniable that, in chronic pleurisy, or in rheumatism affecting one side, the opposite lung is apt to become tuberculated before the lung of the neuralgic or pleuritic side is affected.

In some cases, especially of acute pleurisy, water will be rapidly secreted in that part of the pleura affected, and effused into the pleural sack, which, being thus distended, will press upon the lobe of the adjacent lung. The effect of this pressure is of course to ex-

clude the air; and if long continued with considerable severity, will, by obliterating or consolidating it, or by causing tuberculation and ultimate ulceration, destroy the lung. This pressure upon the lungs also occasions adhesions between the lungs and the pleura, the pleura and the wall of the chest, or the opposing surfaces of the pleura itself. By such adhesions, respiration is impeded, the natural play and expansion of the lung in that side prevented, and positive disease frequently induced. Unless the water effused into the pleura by inflammation, is soon drawn off by absorption, or in some other way, the lung will usually be destroyed as far as the pressure extends. Instances of this kind are not unfrequently seen. In most cases, after the water has been removed, the ribs, previously more or less pressed outward by it, will fall down so as to embrace the collapsed lung, and thus leave an external depression. This depression is often plainly distinguishable by the eye; and it will be observed that the ribs, thus depressed, are not moved or lifted up by the fullest inspiration of air, as will be readily inferred. The presence of water in the pleural cavity is extremely hazardous to life, and, when secreted, the most efficient means should be promptly employed to effect its absorption, and arrest the inflammation which has caused it. Where pressure upon the lung continues for any length of time, even though the water is eventually removed, tuberculation and ultimate destruction of the lung, on the affected side, is apt to follow—true consumption taking place.

It sometimes occurs, that after the effused water has disappeared, and the patient has been restored apparently to comfortable health—resuming, perhaps, his ordinary avocations and habits of life—he will be suddenly, and at an unexpected moment, attacked by bleeding at the lungs. In these cases we may be quite certain that the hemorrhage takes place in the lung on the side where inflammation and effusion have been experienced; the pressure upon it by the distended pleura, the inflammation and the effusion of water, having caused a congestion of that lung, which results in bleeding. When this bleeding occurs after pleuritic inflammation and effusion of water, we must usually look for tuberculation, unless prevented, soon to take place in the lung on the affected side, and from which the blood comes; although, as I have before said, in ordinary cases of pain only, for reasons already stated, tubercles are apt to be first deposited in the lung on the side opposite to the painful one.

Persons may, it is true, suffer from pleuritic inflammation and pain in the side, and still never be attacked by hemorrhage or tuberculation. I have known pain in the side to continue for thirty years, more or less, without inducing consumption; yet it is extremely unsafe to expect such a result in any ordinary case, for while these instances of protracted pain do sometimes occur without serious consequences, we all know that very frequently pain in the side is followed, in a few weeks, by congestion on the affected side, attended by hemorrhage from, or rapid tuberculation of, the opposite lung.

I would here remark, that in some cases the lower part of the lung, or the membrane covering it, or the muscles covering that part, may be affected by pleuritic, neuralgic, or rheumatic pain, and the upper part of the same lung may become tuberculated, whilst the opposite lung remains free from disease.

PAIN IN THE SIDE SHOULD NEVER BE NEGLECTED.

I desire here to repeat, and if possible impress, the admonition that *pain in the side* should never, in any case, be neglected; and most especially in those who belong to consumptive families. It may not, it is true, indicate serious disease; but it so generally does so, that, as a premonitory warning of the approach of the destroyer, it should be instantly heeded. If it is heeded, and efficient measures are always taken in season to remove it, however frequently it may return, life may be prolonged to a good old age, which would otherwise be cut short at an early day.

I have now in my recollection a lady who, at the age of thirty-two, was given up to die of consumption, who, however, lived to see her eightieth year, and died at last of an affection of the brain. During all that long period of over forty years, she was subjected to attacks of pain in the left side, but which she never neglected for any length of time. Whenever it occurred, she at once applied external counter-irritations, by blisters, stimulating liniments, &c., followed by anodyne plasters, to the side. In this way, in two or three days, the suffering would be removed.

In a great many cases, towards the termination of fever, pain in the side will come on, and the disease will manifest a disposition to locate itself there, especially in persons inclined to consumption.

This must be promptly resisted, and the patient, particularly if feeble, should be encouraged to keep the chest fully expanded by long, full breathing, &c.

TREATMENT OF PLEURITIC CONSUMPTION.

In the treatment of this disease, whether for prevention or cure, the first step to be taken is to remove the existing inflammation and relieve the pain. So long as these continue, the integrity of the lungs is inevitably endangered. Mild counter-irritation, on the surface of the chest, by plasters and stimulating and anodyne liniments, may be beneficially employed. The bowels should be kept free, and gently stimulated a little beyond the normal condition in health; free perspiration should be promoted by bathing and friction on the surface of the whole person; the kidneys should be maintained in the full and complete performance of their proper function; care should be taken that the liver healthfully performs its duty; the nervous system should be maintained in a state of healthy quietude; and, in fine, the whole system should be brought at once, as far as possible, into a condition of vigor and activity. I would repeat the remark, that it is specially important that the bowels should be kept in a good condition, as simple costiveness is not unfrequently the origin of obstinate pain in the side.

In relation to counter-irritants, I would add, that in my own practice I very seldom employ *blisters*, or vesication of the skin, but rather apply irritating liniments, and cloths dipped in hot or cold water, &c., which will generally subdue the pain without inducing debility, or exciting or weakening the system. Blisters are, indeed, often useful in removing deposits of water that have commenced forming in the pleura, in the early stages, frequently removing it entirely. In acute pleurisy, however, and before water has been effused, I should never advise the application of blisters, especially in the commencement of the attack, because they serve to increase the irritation of the part affected, reduce the strength, and prostrate the nervous system. Sometimes, persons in confirmed consumption are attacked with acute inflammation in the well portion of the lung, extending to the pleura adjacent. In such a case it is very dangerous to apply blisters, although at first thought they might seem to be indicated; because the soreness and pain caused by them prevent the expansion

of the lung in breathing, and induce the patient to suppress his cough as much as possible; the suffering they occasion rendering it all but impossible for the patient to cough freely. The lungs, in consequence, become loaded with secretions and filled up, perhaps even greatly congested, so that recovery in many cases becomes impossible. The lung had better be relieved by the application of one or two leeches or mustard-poultices, irritating liniments, cloths dipped in hot or cold water, &c. In such cases, I do not like to do any thing which shall, in the slightest degree, prevent the patient from freely expanding the chest.

While the above treatment is being pursued, special efforts should be made to enlarge the chest, and expand and fortify the lungs. All confining labor and sedentary occupations, and all continued stooping and constrained positions, should be carefully avoided by those subject to a pain in the side. An erect posture should be maintained; healthful exercise in the open air should be taken daily; appropriate and regular hours of rest should be observed, and thus every mechanical and external cause of disease should be removed. Long, full breaths should be frequently taken, and, if necessary, an inhaling-tube used; and well-fitting shoulder-braces should be worn, if there is the slightest disposition to stoop. Oftentimes this mechanical treatment alone will remove what has been considered a *seated* pain in the side.

Let me add, that under appropriate treatment, and if not neglected until the lungs are disorganized and the constitution broken down, *pleuritic* consumption is eminently curable. I have treated thousands of cases of pain in the side, and I scarcely remember a solitary instance where I have failed of a perfect cure, where the remedies I have prescribed have been judiciously employed. Of course, we must remove all the causes that I have mentioned as producing pain in the side, in order to effect a permanent cure; such as dyspepsia, costiveness, humor in the blood, correction of all constrained positions, &c., stooping chest, and any and all causes that tend to contract the chest, and in any way depress or break down the general health.

CHAPTER XI.

PULMONARY CONSUMPTION—ITS VARIETIES—(*Continued*).

DYSPEPTIC PULMONARY CONSUMPTION.

True pulmonary consumption, in persons having any predisposition to it, not unfrequently originates from derangement of the stomach, or some disorder of the digestive system. The dyspepsia which thus results eventually in disease of the lungs, often commences with a sinking, exhausting, all-gone feeling at the pit of the stomach. Sometimes this feeling extends up on both sides to the collar-bones. The sensation is often most prostrating. The appetite is usually capricious, being either very poor or very craving. The food sours on the stomach, and often rises up in a sour water. Frequently, severe pains are felt at the pit of the stomach, or in that region, sometimes extending up into both sides of the breast, under both nipples, and sometimes going directly through to the spine, between the shoulders, behind the lower end of the breast-bone. It is a grinding, crowding, sinking pain, and is greatly increased by certain kinds of food. It will usually be felt most on one side, either right or left, not extending to both sides at the same time. In some cases, a most distressing pain in the stomach, or in the upper part of the abdomen, will occur at regular periods after eating, say one to three hours, and be very severe for some time. Often a faint sickness will be experienced at the stomach. Sick headache, very severe and very alarming, will sometimes occur, followed by bilious vomiting, more or less severe; and these attacks of headache often come on periodically, at intervals of one to three or four weeks. The bowels are usually irregular: there may be costiveness or diarrhœa—one or the other prevailing; but very often they will alternate, one following the other at longer or shorter intervals, and both attended with a feeling of great weakness of the stomach and bowels. The tongue is habitually coated; and there is often a foul, sour, or bitter taste in the

mouth. Very frequently, canker sores appear in the mouth or fauces, on the uvula, under the tongue, on the inside of the cheeks or lips, &c. Heat is often experienced in the soles of the feet, the palms of the hands, and in the face. There is frequently much acidity of the stomach, with sour, acrid, or scalding eructations; and a distressing, burning sensation along the whole track of the gullet, from the stomach to the mouth. This burning is also felt often in the stomach, sides, chest, under the shoulder-blades, under the breast-bone, and sometimes in the lungs themselves. There is usually great and long-continued tenderness and soreness about the pit of the stomach. All exertion of the arms, as in sweeping, and a stooping posture, as in sewing much, and all lifting, are followed, more or less, by aggravated pains and weakness about the pit of the stomach and in the chest. Sometimes neuralgic pains are felt in the face, and side of the neck and head. All these symptoms are greatly aggravated by colds, by all excitement, either bodily or mental, and by all excesses in eating or drinking. So sensitive to disturbing influences do many become under this disease, that it would seem that the least thing will throw them into disorder, and life is rendered truly wretched.

In dyspeptic consumption, vomiting of the food is often experienced. After a cough is established, this distressing symptom may continue to harass and reduce the patient until the close of life.

In some cases there is a complete stoppage of the food in the stomach, occasioning most unpleasant, and even most distressing symptoms. Indeed, it is sometimes the case that this stoppage of the food in the stomach proves suddenly fatal. I have no doubt that many of the sudden deaths from what is supposed to be *heart disease*, are caused by a simple stoppage of the food in the stomach. In these cases, the food ferments, and the stomach becomes distended with gas, when it presses against the heart, and impedes its action. In consequence of a partial suspension of the circulation of the blood taking place, the brain becomes congested, and apoplexy and death follow. The less aggravated symptoms of this stoppage are, a dead heavy weight at the stomach, a distressing sense of fulness, as if the heart and lungs were pressed upward, pain across the body at the pit of the stomach, a dull drowsy feeling, a sense of fulness in the head, rush of blood to the head, acid stomach, coldness and numbness of the feet and hands, &c. Some, and perhaps many of these symptoms are usually present. They come on suddenly at times,

are extremely severe while they last, and then perhaps as suddenly for the time subside, to be renewed again after another meal.

In some, the food lies as it is eaten, and is changed very slowly; it may lie for days on the stomach, and hardly any change take place; indicating that the stomach is cold and lifeless, and requires stimulants. In others the stomach is feverish, and seemingly on fire, forbidding all stimulants. The stomach is sometimes loaded with bile, which disturbs digestion, causing sickness, with other bad symptoms.

DIET FOR THE DYSPEPTIC.

In this disease, scarcely any specific rules can be given in regard to diet. Each patient has to be governed very much by his own experiences. Every dyspeptic has found that some kinds of food, which perfectly agree with others, and even with himself in some conditions of it, he cannot eat at all without causing extreme disturbance. Often one article of food after another is rejected, until it seems impossible to find any thing which the stomach can digest, and food is taken only when nature is sinking for want of nourishment. The dyspeptic stomach seems to be governed, in accepting and rejecting various kinds of food, by no law that has not numerous exceptions. What one can eat, another can scarcely look at; most fully confirming the adage, "One man's meat is another man's poison." Most capricious are these poor dyspeptics in their reception and rejection of diet. One can eat only fresh beef, and this prepared in some peculiar way; perhaps only a steak very rare or very well cooked: salt or corned beef or pork, he cannot swallow at all. While another eats salt pork and beef, and no other meat. One can eat fresh pork, but not pork salted or smoked. Another can eat only roast or broiled mutton, or lamb, or veal. Some can eat salt fish, but not fresh; others only fresh fish. Some can eat only poultry; others only game, &c. So with bread: one can eat only corn bread, or that made from unbolted flour; others only stale wheat bread. One can eat vegetables of some kinds; another eats no vegetables. Some can drink tea or coffee; others not, &c.; so through the whole catalogue of edibles and drinkables. No two dyspeptics agree in all things. In some cases, we find a debility of the stomach, that prevents digestion of almost any food, save the lightest; and yet what is lightest and easiest in one, is impossible in

another. Some cannot drink water at all without great distress; in fact, reject all fluids, and take only solids. One can take hot drinks; others only cold drinks, &c., &c. Stomachs differ so much, that the experience of a single person, as regards the digestibility of different articles of food, furnishes by no means a safe rule. What was true, therefore, of the stomach of Alexis St. Martin, Dr. Beaumont's celebrated subject, may not be true of all stomachs. Indeed, no positive rules of diet can be laid down; but individual experience must be allowed to control or modify all directions.

Many physicians are quite dogmatic, however, on rules of diet, peremptorily advising one thing and neglecting another, in all cases of the same complaint, without regard to the patient's peculiarities and experiences. It would be found on inquiry, I think, that this arises from the fact that the physician draws his conclusions from his own personal experience of the effects of different kinds of food upon himself; and that he pronounces, as a general rule, food good or bad, as it agrees or disagrees with himself. Governed by this experience of their own, we find physicians often differing most confusedly as to what is proper diet, and recommending or forbidding certain kinds of food on what seems mere caprice. Oftentimes the strangest articles of diet are in this way advised and lauded. I know one old physician who thought baked pork and beans fully equal, or superior in its health-giving properties, to any article of food whatever. He said children four weeks old might eat baked pork and beans with perfect impunity. Undoubtedly this good doctor slept pleasantly on pork and beans.

DYSPEPSIA DANGEROUS IN THOSE PREDISPOSED TO CONSUMPTION.

It is not, of course, always the case that a faulty digestion causes disease of the pulmonary organs; as we meet with multitudes of dyspeptics who have been invalids for years, and whose lungs remain sound. But in those who have naturally small, weak lungs, or who belong to consumptive families, and are thereby predisposed to consumption, dyspepsia is very liable, sooner or later, to hasten the development of phthisis. In such persons, after dyspepsia has continued unchecked for a time—it may be for years, or it may be only a few months—a dry, irritable, hacking cough sets in; or there come on symptoms of bronchitis—with sore throat, a sense of tightness

across the chest, weakness of the voice, expectoration, &c. Then rapidly follow a wasting of the flesh and strength, short breath, shrinking of the chest, hectic fever, night-sweats, more or less pain about the chest—the sufferer sinking down and dying with all the circumstances of true pulmonary consumption. And let me say, this fatal decline into consumption takes place in thousands who, notwithstanding their natural predisposition to lung disease, might have never had it but for the dyspepsia.

There are many who have a protracted, annoying cough, and are told by their physicians that it is a "dyspeptic cough"—that it proceeds from the stomach, &c., and that therefore they need feel no apprehension in regard to it. It is often true that a cough is caused by a disordered stomach; but in no case should the subject of such a cough listen to the syren song of *no danger*. There is danger, and such as should drive the invalid to seek help at once, and not to remit his efforts for relief until the cause of the cough is removed. And I would particularly sound this warning in the ears of every person who has a weak voice or chest, or who is, by his form, his family, or his occupation, inclined to consumption. Such persons should not, as they value their lives, neglect or disregard dyspepsia, if they have it in any of its forms, but seek a cure without delay.

I should add that, through all the stages of this form of consumption, dyspepsia, as it commences the disease, so it continues a marked feature until life ceases, or the patient is cured. In many cases, the most shocking sore mouth takes place, which, if not relieved, most cruelly embitters the latter days of life.

CAUSES OF DYSPEPTIC CONSUMPTION.

No class, no station, no occupation, no place of residence, no period of life, no sex, no age, are exempt from dyspepsia; and it may be said that hardly any habits of life, and rules of diet however guarded, will always insure us against it. Still, some occupations and conditions of life dispose to it more than others. An active, out-of-door life, moderately hard labor, and wholesome, plain, coarse diet, will confer the greatest exemption from it. Those who observe temperance in all things, are most likely to have a good digestion. Badly cooked and rancid food, very rich and high-seasoned diet, excess in eating, excess in abstinence, irregularity in eating, confinement to

study, devotion to literary pursuits, long-continued sedentary habits and labors—protracted, exhausting, in-door labors, excessive use of tobacco—grief, anxiety, and care—sexual indulgence, indolent habits, foul air, costiveness, deranged liver, derangement of the kidneys, chronic diarrhœa, female irregularities, all debilitating and long-continued fevers, harsh medicines that injure the coats of the stomach—all contribute to produce dyspepsia, and to prepare the way for dyspeptic consumption.

CURABILITY OF DYSPEPTIC CONSUMPTION.

Consumption brought on by dyspepsia, is usually obstinate and difficult to manage. Dyspepsia will alone often tax the skill of the physician; but when it is complicated with a disease still more serious and difficult to cure, a combination is presented, which calls for all the available resources of medicine. Still, the subject of this combined disease, dyspeptic consumption, should not despair. It may be cured. I do not, of course, mean by this, that it is curable *in every case:* it may, of course, pass beyond the reach of remedies. But I mean to be understood, that it is not in its nature incurable. As in other forms of consumption, so in this; before the constitution is broken down, and the digestive powers completely prostrated, and before the lungs are extensively destroyed, the patient may generally be saved. The treatment I employ in this form of disease, so far as it relates to the lungs, does not differ essentially from that which I use in simple tubercular phthisis. Remedies are of course employed to meet the dyspeptic symptoms, and these are adapted to each individual case.

I need not say that it is wisest not to allow dyspepsia to degenerate into consumption. And it need never do so; for indigestion, in all its protean shapes, is perfectly curable, when the proper treatment is employed. I have treated many thousand cases of dyspepsia, and I do not recollect a single case where the dyspeptic was not perfectly cured, when the remedies prescribed have been faithfully used; the patient being restored to his full strength, vigor, appetite, and capacity to eat and enjoy his ordinary food.

CHAPTER XII.

PULMONARY CONSUMPTION—ITS VARIETIES—(*Continued*).

HEPATIC (LIVER) PULMONARY CONSUMPTION.

Disease of the lungs, produced, or brought on, by diseased liver, is of frequent occurrence, and may arise in two ways, viz.: 1st, by abscesses in the liver, which break into and discharge through the lungs; and, 2d, by the effects of a disordered liver, communicated to the lungs through the general system. The upper, rounded portion of the liver, lies under the lower part of the right lung, and is only separated from it by the diaphragm or midriff. This portion of the liver is at times the seat of inflammation, acute or chronic, which occasionally runs into suppuration, and forms abscesses. Adhesions to the diaphragm, and thence to the pleura and the lung, may take place, through which a fistulous opening may be made from the liver into the lung, communicating with the air-passages. In this way, an abscess from the liver may be discharged through the lung. Physicians, not aware that this may be the case, and not familiar with the mode of critically examining the lung itself, will often be entirely deceived and mistaken, and, overlooking the disease of the liver, conclude the lung to be the original seat of the disorder. Disease of the lungs thus induced, may be properly called *hepatic pulmonary consumption*. It usually begins with much pain in the right side, often extending from the right shoulder to the right hip, frequently very severe. A dry, hacking cough sets in sooner or later, which is very harassing, and almost constant, with great shortness of breath; headache, sickness at the stomach, and obstinate costiveness usually occur, with fever, chills, and night-sweats. Sometimes there is swelling, more or less extensive, in the right side.

After these symptoms have continued some time, suddenly and without any notice, after or during a violent fit of coughing, the patient begins to raise great quantities of pus, often a pint or more in a short time, mixed more or less with blood. The matter thus ex-

pectorated, has a most awfully fetid odor; so offensive is it that it is almost impossible for the patient's attendants to stay in the room with him. Consternation, of course, is felt by the patient and his friends, and also by his physician, if he is not aware that the origin of this discharge is the liver.

The left lung, not lying in the vicinity of the liver, is not of course liable to be effected by a liver abscess. It is only through the right lung that these abscesses break their way and discharge. I have, however, seen a case where a liver abscess broke into the pericardium, or heart-case, causing immediate death.

This form of hepatic consumption is usually very curable indeed, if properly and seasonably treated.

The other form of hepatic consumption may result, as I have intimated, from the influence of a disordered liver upon the general system, and thence upon the lungs,—from congestion, or torpor, or fatty degeneration, or obstructions of the liver, which, though not resulting in abscess, may sometimes irritate the lungs by the contiguity of diseased tissue; generally, however, by the wasting of the general system, from bad bile, or jaundice, or costiveness, or chronic diarrhœa, or imperfect digestion, resulting in bad, poisonous blood. In a vast many instances, in this way a cough is excited, and tubercles may be deposited in the lungs, and bronchitis come on, so as finally to sink the unhappy patient into true phthisis.

This liver consumption mostly occurs in districts where there exists much malaria, and where bilious fevers and ague and fever in consequence prevail. Oftentimes the patient will find himself declining, and his disease will have a distinctly marked periodical character. He will have his *well days*, when his cough is free, and all his symptoms will be mitigated, perhaps even disappear; and then his *bad days*, when all his symptoms will be aggravated, his cough particularly being racking and well-nigh insupportably severe. One would almost think he would cough himself to death in a short time. These "bad" and "well" days will be periodical, as in ordinary ague and fever. In persons not greatly predisposed to lung disease, this form of consumption may go on for many years, rendering them most truly miserable, but not soon ending fatally; if predisposed to pulmonary disease, however, it rapidly tends to a fatal termination, if not promptly cured.

A BILIOUS CLIMATE BAD.

It is a very common popular opinion, and one held even by some, otherwise, intelligent physicians, that pulmonary consumption prevails less in a highly bilious climate—in those parts of the country most subject to bilious fevers and ague and fever—than in places free from malarial influences. Indeed, many suppose that these are good places for the consumptive to visit, and in which to reside. No greater mistake can be made than this. A continuance of ague and fever in persons at all predisposed to consumption, will most assuredly bring on disease of the lungs. Indeed, its long continuance may, and often does, induce consumption in those not at all constitutionally predisposed to it.

In truth, every description of liver complaint is liable to bring on consumption in all persons predisposed to it; either by direct contact and adhesions of a diseased liver to the lungs, or by the effect of biliary derangement upon the general constitution, impairing digestion, vitiating the blood, reducing the strength, and so producing bronchitis and tuberculosis.

One of the peculiar indications of hepatic consumption, by which it may be usually distinguished, is a pale yellow, tallow-candle look of the complexion, so strikingly different from the hectic tints in the true original bronchial tubercular phthisis. In this variety of consumption, the patient is also apt to bloat soon—the feet, limbs, person, and face swell, and often there is a rapid tendency to universal dropsy.

Every form of hepatic consumption is generally very curable, but usually requires a peculiar treatment, different from that indicated in any other form of lung disease.

FATTY DEGENERATION OF THE LIVER.

It is proper that I should here notice a condition of the liver not unfrequently found in consumptive patients, and which is appropriately termed a *fatty degeneration* of that organ—a condition in which the liver is discovered to be partially or wholly converted into fat. It is a disease which is the effect, not the cause, of pulmonary disorder; but when once produced to the extent it is often found to reach,

will itself prove fatal to life, even though the lungs should be restored to soundness and health. In some who have died of phthisis, the liver is found to be greatly enlarged and converted into what appears to be a solid mass of fat—every trace of the peculiar organization as liver having been obliterated, and nothing remaining but the hepatic blood-vessels traversing the fatty mass, and the biliary ducts imbedded in it. From the state in which this entire transmutation has taken place, to that where only slight fatty deposits in the cells of the hepatic tissue are seen, the liver is found, in different persons dying of consumption, in all degrees of degeneration, depending upon the activity of the influences that have occasioned it, and the length of time these influences have been in operation. It is a disorder much more frequently found in females than in males; and oftener in those who live and die in a warm climate, or are confined in a warm atmosphere, with but little exercise during their sickness, than in those who have been accustomed to a cold climate and much out-door exercise.

This condition of the liver, which is more frequently found in connection with disease of the lungs than otherwise, is regarded by most physicians—by writers on the lungs, and others—as a very remarkable, even an unexplainable, phenomenon. But it seems to me that those who thus regard it, have overlooked some very simple and obvious physiological laws, a reference to which will render both the nature and the causes of this peculiar disease quite clear. Let me state them:—The principal elementary constituent of fat, it is well known, is *carbon*. It is also a familiar fact in physiology, that the chief office of the carbon taken into the system in the food, whether in form of fat or otherwise, is to supply heat to the body; and this it does by combining with the oxygen which is derived from the air through the lungs in respiration—a process strictly analogous to ordinary combustion, the carbon serving as the fuel. Hence it will be seen that there are two conditions necessary for the absolute consumption of carbon in the system: (1st) *a demand for fuel*—that is, that there should be a giving off, or an expenditure of animal heat—creating a necessity for the process of combustion, or the union between the carbon and oxygen, to supply the heat expended; and (2d) an adequate supply of oxygen, thus to combine with the carbon. Whenever, therefore, there is taken into the system an amount of carbon either that is greater than is required to supply the

heat expended, or that is beyond what can be combined with the oxygen which the lungs supply, the excess is not actually consumed, but is either thrown out by the emunctories, or is deposited in the system in the form of fat.

Now, when there is an excess of carbon from the absence in any degree of the first-named condition,—that is, where the evolution and expenditure of animal heat is comparatively slow,—but where at the same time the whole system is in a state of health—there being a full supply of oxygen by the lungs for all the requirements of health,—and where, especially, the carbon has been received in connection with other appropriate nutritious aliment—then this excess, though not *consumed*, becomes *modified* so as to be capable of being carried to all parts of the system, and deposited in the form of fat in and upon all, or nearly all, the tissues of the body. The person is then said to "gain flesh"—to "grow fat." But when the lungs fail to perform their office, and the needed oxygen—the vital air—is not supplied, then, if there is an excess of carbon, it remains not only unconsumed, but unmodified; it finds no oxygen with which to unite, and the various tissues of the body reject it: it must, therefore, either be thrown out through some of the emunctories, or seek some organ or part which will receive it in its crude condition. Such a refuge it finds in the liver. In the cells of this highly vascular organ, one of whose offices is to depurate the blood, it is received and retained, often until its accumulation breaks down the cell-walls and destroys the organization of the liver itself.

This brief explanation of what has been looked upon as a very "remarkable fact in the pathological history of phthisis," might, perhaps with profit, be very much amplified. But enough has been said, I think, to render it clear that there is no mystery in this particular disease; indeed, that it is just such a disease as we ought to expect as the result of impaired pulmonary functions.

The view I have taken of the subject is confirmed by the conditions under which fatty degeneration of the liver most frequently takes place, as well as by the class of persons most liable to it. I have already remarked, that it is found in females oftener than in males. And so it should be; for females are, as a class, more confined to an in-door life, are less exposed to the cold, breathe a warmer atmosphere, and take much less active exercise than males. Just in proportion as their conditions in these respects thus differ from those of males, will

their comparative capacity to consume carbon be less, and their liability to fatty deposits in the liver, in case of diseased lungs, be greater. So we find those male consumptive invalids who, during their sickness, are shut up in warm rooms, who are allowed seldom to go out-doors into the fresh air—who breathe an impure air and who take but little exercise, are more subject to this peculiar disease than those whose habits in these respects are the opposite. So also it is found more frequently in warm climates than in cold, particularly if an equally carbonaceous diet is used in the former as in the latter.

Now, if we turn our attention to what I may call *comparative pathology*, we shall find the view here taken well-nigh *demonstrated*. In certain animals, a fatty degeneration of the liver may be actually produced by simply submitting them to the conditions I have stated, viz.: by confining them in a warm, close atmosphere, preventing as far as possible all muscular motion, and feeding them on rich food highly charged with carbon—the constituent element of fat. For example, the liver of the goose may in this way be greatly enlarged and *fattened*, while but little or no increase of fat takes place in any other part of the body. A well-known dish, called "*pâté de foie gras*"—considered, particularly in France, a great luxury—is made from the livers of geese that have been, for a length of time, closely confined in a warm, dark room, and "crammed." By this process the liver is made to grow to an enormous size, and is converted into a state of the most complete fatty degeneration. The same result may undoubtedly be produced in almost any animal by the same process. Some of my readers may think it a questionable taste, which finds a dietetic delicacy in the diseased liver of a goose!

It should be remarked, that this unnatural accumulation of fat is not always confined to the liver, nor is it wholly peculiar to diseased lungs. It is found in other forms of disease, and on other organs; sometimes on and about the heart—at others in the spleen, the pancreas, and other glands, to a greater or less extent; the place of deposit being no doubt determined by the degree of modification which the carbon, taken in the food, has undergone in the process of digestion; and this in turn being determined by the amount of oxygen furnished by the lungs, the exercise taken by the patient, and the degree of perfection with which the functions of life have been carried on by the general system.

The facts here stated have a practical importance. From them

may be gathered some of the reasons why I enjoin upon consumptive invalids the necessity of making every effort to keep the chest large and the lungs expanded, and to accustom themselves to full, deep breathing, that the greatest possible amount of air may be received and consumed; why I insist upon avoiding confinement in warm and illy-ventilated rooms, and spending as much time as possible in the open air and in healthful exercise. Also why I advise against the use of much fat food, and recommend a farinaceous diet, with only the lean part of meat—and poultry, and particularly wild game, in preference; and why, both in preventing and curing consumption, I make so great a point of maintaining all the organs of excretion—the skin, bowels, kidneys, liver, &c.—in a condition of healthy activity and vigor.

COD-LIVER OIL PROMOTES FATTY DEGENERATION OF THE LIVER.

It can hardly be necessary for me to say, that whatever in medical treatment, or in the diet of consumptives, tends to promote the degeneration of the liver I have been describing, must be in the highest degree pernicious. There is a great variety of agents which have, at one time and another, successively risen into professional favor, and then fallen into disuse, as preventives or curatives of consumption; but not one that has ever been taken up by the profession, has so direct a tendency to produce the fatty disease of the liver referred to, as the one which is now the rage: I allude to *cod-liver oil*. The extent to which clarified whale or lamp oil, which is complimented with the prefix *cod-liver*, is used, would nearly border on the ridiculous, if the consequences were not too grave and serious for such a view. Not only is it poured down the throats of poor victims of *consumption* by the quart and gallon, but in the hands of thousands of physicians it is a "*panacea*" in fifty diseases besides. It is, indeed, even become a formidable rival of calomel to the proud position of a "sheet-anchor" in the profession. It is given for scrofula, scurvy, and all scorbutic conditions, bronchitis, catarrh, pleurisy, acne, tetter, "scalled head," "ring-worm," eczema and various other skin diseases—for debility, "decline," dyspepsia, &c., &c. I do not, however, complain very much of its use in these disorders; for while it can do little good, it will do little harm. And as there are physicians who must have something to fall back upon for a prescription,

when they don't know what to give, cod-liver oil is about as harmless a thing as they can adopt: certainly much more so than calomel.

But I cannot speak of it as harmless when profusely and promiscuously employed in pulmonary consumption. In this disease, as I have shown, are usually presented the conditions which counter-indicate its use. The only *medicinal* virtue it can possess, must reside in the small amount of iodine, bromine, or other sea-salts it is supposed to contain; and if these do exert any specific agency in arresting or curing disease of the lungs, they had much better be administered compounded with something besides *fat or lamp-oil.* But we are not left to theory or inference as to its effects in phthisis. If it is doubted that it has a direct tendency to produce fatty degeneration of the liver, it is only necessary that an examination be made of the liver in any person who has died of consumption after having been submitted, for any considerable length of time, to the cod-liver oil treatment. In the hospitals of this city, little or nothing is done for consumptives except to feed them on cod-liver oil; and it is a fact easily ascertained, that in those dying of consumption in these institutions, whose bodies are carried into the dissecting-rooms of our medical schools, the liver is found to be, in a vast many cases, to a greater or less extent, in a state of fatty degeneration. In many of them, this organ is seen to be converted into what appears to be a mass of solid fat, of a yellowish-white appearance. Of course, this result is not confined to our hospitals. It takes place wherever cod-liver oil is largely used in consumption. Indeed, it could not well be otherwise.

The conditions usually presented in consumption, are precisely those in which this result would be likely to take place. Consumptives are generally, as is well known, cautioned against "exposure to the *cold*," recommended to live in a warm atmosphere, to seek a warm climate, and to wear an extra amount of warm clothing. In every way, therefore, they are led to reduce as slow as possible the natural demand for carbon. Then, as we have seen, the very disease itself, by impairing the power and capacity of the lungs to furnish oxygen essential to the consumption of carbon, tends directly to disqualify the system for the reception of any highly carbonaceous aliment. Thus, I say, in most cases of pulmonary consumption, it is that all the conditions meet which are most favorable to causing a

fatal disease of the liver, by the profuse and injudicious use of cod-liver oil.

Another fact corroborates my position. It is that this fatty degeneration of the liver is much more common of late years than formerly. Twelve or fifteen years ago, it was much more rarely found than now, and still more rarely was the degeneration found to have proceeded to any thing like the extent which is quite common now. With the advent of cod-liver oil as a popular remedy in phthisis, the increase in frequency and severity of this disease of the liver commenced; and it has steadily kept pace with the increased use of this oil.

The same result would follow the use of any other article of food equally charged with carbon, if the other elements mingled with the carbon were as inoffensive as in cod-liver oil. But what is peculiar in this oil is, as I have mentioned, that when it is taken beyond the natural demand of the system for *fuel*, it seems to have a special affinity for the liver, and is largely deposited in this organ; and in process of time destroys its distinctive organization, converting it into fat. In consumption, it frequently occurs, as we have seen, that the *ordinary diet* of the patient, unless specially guarded, is charged with carbon to such a degree as to cause a disease of the liver. What folly, then, to pour into the stomach daily large quantities of an offensive oil, which is little else but carbon—loading the system with the very substance which, less than all others, it can consume, and which is sure of itself, sooner or later, to breed disease!

Still, cod-liver oil has it uses. It is, under proper conditions, a good nourishment; and in some forms of consumption, in connection with other remedies, and when the habits of the patient and the hygienic treatment are regulated with reference to it, it may be guardedly used with advantage. But let every consumptive invalid remember, that when he drinks bottle after bottle of cod-liver oil, as it is the fashion now to prescribe it, ten chances to one he is laying the foundations of a disease of the liver which will be fatal to life, even though he were to succeed in saving his lungs, which he will not however do.

More specific directions and rules for the use of this article, will be given in the second part of this work.

CHAPTER XIII.

PULMONARY CONSUMPTION—ITS VARIETIES—(*Continued*).

BOWEL CONSUMPTION.

Pulmonary consumption is often induced by disease of the bowels, which is a common complaint, occurring in a great many people. Persons are often subject to it who go from a cold to a warm climate, and reside there for a length of time, and particularly those who have the fevers incident to hot climates, and have taken much calomel; also very many residents of the western and southwestern and southern States, especially residents of the valley of the Mississippi, who drink—which is customary there—the Mississippi water. All the waters of the Mississippi valley, and nearly all the western lakes, as well as their great outlet, the St. Lawrence River, are more or less charged with magnesia and other foreign matters; and their use, when these waters are low, is apt to produce diarrhœa and dysentery, especially in August and September. It is well known, that new-comers at New Orleans, for example, are apt to have diarrhœa; and in some cases this is followed by ulcerated bowels. This disease is very common in California, and dreadfully so on the Isthmus of Panama and the West India Islands. In all hot climates it prevails, and is there usually attended by derangement of the liver, producing bilious diarrhœa. Attacks of the Asiatic cholera, if not fatal, often leave the bowels in a weak and diseased state. Dysentery, inflammation of the bowels, colds settling on the bowels, often induce chronic diarrhœa, and ultimately, in those at all predisposed to it, consumption. In this climate, especially, such disorder of the bowels is apt to determine, sooner or later, upon the lungs. Derangement of the stomach and dyspepsia are very apt, in those predisposed to it, to produce, or greatly aggravate, pulmonary disease. Skin diseases frequently *strike in*, as it is often expressed, or leave

the surface and fall upon the lining membrane of the bowels. Bowel complaint is most apt to commence and prevail in summer, particularly in children, in whom it is often terribly fatal, sometimes even epidemic. On the subsidence of summer freshets of the rivers and streams, dysentery and bowel complaints often break out with great severity. Unripe, crude, or badly-cooked fruits and vegetables, often induce this disease. In nearly all cases of consumption, towards the close of life, the bowels are apt to become affected, and thereby the sufferings of the patient are greatly aggravated. In some persons, long-continued costiveness, and in others inflammation of the bowels, will be followed by chronic diarrhœa, which may continue many years, although it may become soon fatal.

In many cases, this weakness of the bowels comes on very insidiously. In others, the patient will be at once attacked with severe diarrhœa. Any cold, any over-exertion, sudden alarms, mental anxiety or exciting news, grief, any irregularity in diet, and many articles of food, usually harmless, will bring on, or greatly aggravate the disease in some persons.

In many forms of disease of the bowels, the patient soon becomes very feeble, loses flesh and courage, experiences a distressing sinking in the bowels, griping pains, and great soreness and tenderness to the touch. The appetite becomes very poor, or very craving and depraved. He is apt to be exceedingly nervous, easily disheartened, and full of fears and apprehensions. The evacuations are sometimes of a clay color, and at other times dark and bilious. In some cases there are passed long, stringy threads or ribbons, like the scrapings of intestines. Food will often pass undigested; great burning is often felt in the bowels; bloody evacuations, and even pure blood, will be passed. In females, the catamenia cease, or become irregular and deficient. The kidneys seem, in many cases, all burned up; urine very scanty, high-colored, thick, and more or less scalding.

After the continuance, for a longer or shorter period of time, of disease of the bowels, sore throat will often set in, with symptoms of bronchitis, attended by a cough, and the patient will soon find that he has diseased lungs. In many cases, however, the lungs become affected, and tubercles are deposited, while the throat remains unaffected; when a cough, dry and hacking at first, but after a time accompanied by slight expectoration, will be the first indication

that the lungs are suffering. In these cases, the expectoration is usually very little from the beginning to the end of the disease, so that the unhappy sufferer is apt to be deceived, and hardly to suspect that his lungs are affected, until they are perhaps well-nigh destroyed.

CURE OF CHRONIC DIARRHŒA AND BOWEL CONSUMPTION.

I have treated a great number of cases of bowel complaints, in all ages and both sexes, and with very general success. It is almost universally believed, that ulcerated bowels cannot be cured. But this is a great mistake, as I have witnessed many perfect and permanent cures. There is, it is true, scarcely any disease, in the treatment of which the skill of the physician and the resources of medicine are more greatly taxed than in chronic diarrhœa and other bowel complaints. Still, a vast many cases pronounced perfectly hopeless, are entirely curable. Three years ago next August, I treated a gentleman of this city for chronic diarrhœa and ulcerated bowels, of several years standing. He said to me on my first visit, "You are the one hundred and twenty-third physician I have consulted within the last three years and a half, at an expense of over seven thousand dollars. Among them are those most celebrated both in Europe and this country; but without any apparent benefit." His sufferings were terrible, and his case seemed indeed almost hopeless. I had, however, the pleasure of seeing him, under the treatment I advised, soon improve, and finally restored to sound health.

TREATMENT OF BOWEL CONSUMPTION.

Each case will be found to have its own peculiarities, which will determine and modify the treatment. Some require cathartics, some astringents, some opiates, and some all these combined. It is often the case, that whilst one portion of the bowels is raging with excitement and fever, another part will be almost torpid. The liver is sometimes torpid and sometimes too active. The stomach may be bilious or acid, or slow and feeble: usually it is weak, and performs its office imperfectly.

After all tenderness is removed from the bowels, I generally find the abdominal supporter of great benefit, and almost indispensable in

the successful treatment of this disease. Bleeding, cupping, leeching, blistering, &c., I all but never use at all in any case; but do all I can to raise up the patient and increase his strength; and I give and do nothing by way of medicine, diet, or any thing else, to reduce him.

I think nineteen out of every twenty of these cases get well by proper treatment, seasonably, efficiently, and perseveringly employed.

CHAPTER XIV.

PULMONARY CONSUMPTION—ITS VARIETIES—(*Continued*).

WORM CONSUMPTION.

MANY persons will, perhaps, start at the mention of such a disease as *worm consumption;* but such a disease exists: I have frequently noticed it. It occurs in persons of all ages, but most frequently in children. Its symptoms are very plain when known; but if the physician has not experience and tact in analyzing symptoms, he will be led into most mortifying, and often fatal mistakes. Old people, and persons habitually of a low grade of health, and whose stomachs and bowels abound in mucus and phlegm—also large fleshy persons, with great development of abdomen, often have worms. The alarmed mother detects the disease in her children by the hacking cough, choking and tickling feeling in the throat, startings and twitchings in sleep, swellings and purple appearance under the eyes—by an anxious, care-worn, old look of the face, bad breath, and capricious appetite—at one time very craving, at another none at all. Often soon after eating, the child is again hungry and eats voraciously. In other cases, the appetite is poor and the patient feels all filled up after eating. The bowels are usually irregular; and dead worms, or parts of worms, sometimes appear in the evacuations. The person is listless and weak, declines amusements and all exercise, is low-spirited, &c. The abdomen often bloats, and is hard and tympanitic; and the limbs, especially the lower limbs, become emaciated. There is frequent itching and consequent picking of the nose. A livid color—a bluish paleness—comes and goes upon the upper lip, and hectic spots appear on one or both cheeks. At times there is swelling of the upper lip. The eyes have a dull look, and one almost expressionless. The cough is usually dry, and is not apt to occur at any one time more than another. In some cases it is frightful, and terrifies those who notice it.

In those predisposed to pulmonary consumption, the wasting strength, the loss of flesh, the capricious appetite, and the great debility which are occasioned by worms, soon pave the way to tuberculated and ulcerated lungs. Persons who are not predisposed to consumption of the lungs, unable to work or exercise much, though the cough may be severe, will sometimes linger for years—a wonder to their acquaintances, and a perfect puzzle, it may be, to their physician—until, in the providence of God, a more experienced, observing, or intelligent mind, detects the cause of the disease; and then, if the right remedies are administered, in a very short time the sufferer is often restored to health. But in these cases, the constitution is usually left more or less broken, rendering time and a faithful use of proper remedies necessary to restore the patient to his natural health and strength.

In no variety of consumption do we more need the assistance of the man who can fully and certainly determine the actual condition of the lungs, than in this. Although the patient be subject to a hacking cough, or frequent tickling in the throat, or a violent, terrible chest cough, most harassing and frightful, still the quick ear of the experienced physician will detect whether the lungs are affected; and if not, he will promptly be led to the true seat of the disease.

Many children, delicate persons, and old people, die of worm consumption, whom a little kindly aid at the proper time would have saved. The different varieties of worms cause different effects, so that the kind present may be determined before expelled; but I will not here detail the complicated symptoms of the various kinds,—the tape-worms (*tænia*), the large round worms (*ascaris lumbricoides*), the pin-worms (*ascaris vermicularis*), &c., &c. Suffice it to say, all can be utterly expelled. I have seen, by the use of proper remedies, three quarts of worms expelled at one time from the bowels of a middle-aged person. In all coughs, or apparently consumptive conditions, the physician should never omit an examination whether worms may or may not be present to complicate, or aggravate, or cause the disease.

I knew a striking case of disease, produced by worms, that occurred at Troy, N. Y. A man had been sick, with a very bad cough, great emaciation, and prostration of strength—utter inability to do any work, low spirits, and a total loss of all hope, which was

thoroughly confirmed from having obtained no relief from any quarter, or from any remedy proposed. He had employed quite a number of physicians, but every remedy simply served, by its prostrating effects, to fortify a settled belief that his recovery was beyond medical aid. He had been sick two years, when one morning an empirical doctor, a resident of the neighborhood, called at his house and requested the gift of some medicinal roots that had matured in the patient's garden. His request was very readily complied with; and upon his returning from the garden, the poor sick man in his arm-chair said to the doctor, "I have been sick for a great while." "Yes," interrupted the doctor, "you have been sick a great while longer than necessary." "Why," said the sick man, "do you think you can cure me?" "Certainly, I know I can," he replied; "and when you have no doctor and wish for my services, I shall be very happy to cure you."

He immediately sent for his family physician, reminding him that he had been sick a long time, and that several very respectable physicians had been in consultation over his case, but that he still was without any relief, asked his opinion candidly what the probabilities of his recovery were. The physician, in reply, said he had done all he could do, and he thought his recovery exceedingly doubtful. "Well," said the patient, "you need not call again, unless I send for you, which I shall be happy to do if I require your services." He then sent for this "Indian doctor," one of the shrewdest and most observant empirics that I ever knew. He had a very thorough knowledge of a variety of true curative agents, and exhibited them on many occasions with really great skill.

In less than twenty-four hours after this "empiric" paid his first visit and administered a remedy prepared by himself for worms, the patient sent for his family physician to congratulate him on his deliverance from the cause of his long, obstinate, and apparently hopeless sickness. He had passed several quarts of worms; and from that time his recovery was rapid and permanent.

I knew another case, which occurred in Worcester, Mass. The patient, a young man about twenty years of age, had been long ill, and had received no particular aid from the prescriptions of a number of the best physicians. He, however, applied to an old physician there, a man of the highest standing among the regular faculty, and a true votary of the art of healing. He detected the cause of

his disease; and, by proper remedies, expelled a vast quantity of worms. The relief was immediate, and the cure permanent. I knew the gentleman thirty years afterward, and he was then still in the enjoyment of good health.

WORMS WILL CAUSE CONSUMPTION.

There are, it is true, thousands affected with worms, in whom disease of the lungs is not in any form developed. It is nevertheless as true, that actual tubercular consumption not unfrequently results from the presence of these intestinal parasites. While they are themselves the offspring of a vicious condition of the system, they in turn tend to perpetuate and aggravate this condition; and in many cases, unless expelled, will cause greatly-protracted sickness—sinking, debility, emaciation, indigestion, alternate constipation and diarrhœa, and a long train of mischievous consequences. In this unhappy state, if there is any predisposition to lung complaints, consumption is almost sure to be developed: tuberculous deposits take place in the lungs, a dry hacking cough sets in, shortness of breath is experienced, hectic fever and night-sweats occur, the flesh and strength fail, and the patient sinks down and dies in true phthisis. All this may take place, while the presence of worms is not suspected. In view of these facts, I need not say that it is exceedingly important that whenever any of the symptoms I have described make their appearance, a careful examination should be at once instituted by a skilful physician, to determine whether or not they are caused by or complicated with worms; nor that when the presence of worms is detected, immediate measures should be taken to remove them, and at the same time restore the system from that degenerated condition in which they originate.

WORM CONSUMPTION CURABLE.

It is quite generally considered an easy matter to expel worms from the intestines; and it is true that their mere expulsion is not difficult. There is a variety of medicinal agents the administration of which is usually effectual. But to *cure* the patient—to expel the worms without increasing the irritation of the bowels, and at the same time to correct the constitutional derangement which has

originated them—is quite another thing. If this is *not* done, only temporary relief is given: the worms will again accumulate, and all the disastrous symptoms return, perhaps in an aggravated form. It is however possible, by a proper course of treatment, to give permanent relief and effect a cure. By the use of proper vermifuges, in combination with properly-adapted cathartics, the worms may be expelled with little or no injurious effect upon the bowels, while a course of constitutional treatment may be adopted which shall redeem the general system from its vicious, depraved state, and restore to all the functions a healthy vigor and activity.

It is, of course, more difficult to cure the patient when the lungs have taken on disease. Tuberculosis, or even bronchitis, complicated with, and resulting from, worms, presents a complication which requires peculiar treatment and most skilfully-adapted remedies. But even in this condition, the patient should not despair. I speak from facts that have occurred in my own practice, when I say that this disease, before the lungs have become too far deranged and the constitution too greatly broken down, is curable. But not an hour should the patient delay in seeking efficient aid after he is made aware of, or even suspects, his true condition.

CHAPTER XV.

PULMONARY CONSUMPTION—ITS VARIETIES—(*Continued*).

RENAL OR KIDNEY CONSUMPTION.

The kidneys and bladder are subject to several varieties of disease, which occasion as much inconvenience and suffering and are as excessively annoying as those of any other organs of the body, and they very often have a fatal termination if not promptly relieved. In their progress, and particularly towards their close, they very often affect the lungs.

The following are some of the diseases to which the urinary organs are liable, viz.:

Diabetes, which is characterized by inordinate discharges of urine; and of this disease there are two varieties:—*diabetes insipidus*, in which the urine is without color or taste, sometimes called also *diuresis;* and *diabetes mellitus*, the true diabetes, in which the urine has a peculiarly sweet taste.

Gravel *in the kidneys, ureters, and bladder.*

Stone *in the bladder.*

Catarrh *of the bladder.*

Incontinence *of urine.*

Stoppage, *or suppression of urine*, wholly or partially.

Hermaturea, *or hemorrhage from the bladder.*

It is not my design here to write a full description of these various diseases of the urinary organs. My purpose being to call attention to those conditions simply which are apt to accompany or lead to disease of the lungs. I will only remark, that nearly all instances of these disorders are eminently curable, especially if treated early and proper remedies are employed. I have had many cases of gravel, and almost all forms of kidney disease to treat, and I have rarely been so unfortunate as to fail to effect a cure. These affections should, however, never be long neglected, but at the earliest period

measures should be taken to correct and cure them. Particularly in persons predisposed to consumption, there should be the least possible delay.

CAUSES AND SYMPTOMS OF RENAL OR KIDNEY CONSUMPTION.

The office of the kidneys is a very important one in the economy of life. It is their duty to separate the redundant water from the blood, and at the same time to convey various salts and acids from the system which if retained in the blood would render it poisonous to the tissues of the body, and in this way produce disease and general derangement of the system. In erysipelas, scarlet fever, and many skin diseases, there is no doubt a great preponderance of the urinary acids in the system, by which a febrile state is produced.

In all cases of gravel, we notice that there are frequent calls to pass the urine, which is scanty, high-colored, with a strong odor, and, upon standing, deposits a sediment, more or less copious, usually of a brick-dust color, staining the sides of the vessel in which it is held. In some cases the depositions are white; in all, gritty like fine broken sand. Pain, weakness, and often great heat in the back very generally accompany this condition, which are greatly increased by walking about, or any exertion or work, particularly that which requires much stooping. The system rapidly becomes prostrated and weakened when these symptoms are aggravated; and if there is present any disorder of the pulmonary organs, the effects are very marked, aggravating bronchitis and increasing discharges from the lungs. Persons laboring under continued effects of gravel, or any urinary obstruction, if at all inclined to consumption, are liable to be attacked with symptoms of pulmonary derangements—shortness of breath and bronchial irritation, cough, dryness of the throat, &c., the expectoration from the lungs often becoming in these stages very copious. In all cases of bronchitis or tubercular consumption, when the channels of the kidneys are in any degree obstructed, there is almost always a much greater flow of mucus from the lungs than would take place if the kidneys were free.

Gravel and the effects of gravel long continued, very much incline the predisposed to consumption. In the treatment, therefore, of all pulmonary diseases, or in attempting their prevention, it is most

important that the kidneys should be free and healthy in their action.

DIABETES.

This is a form of kidney disease, highly dangerous to the patient, and in those predisposed to lung disease, is often a direct cause of consumption. There are, as I have said, two varieties of this disease—*diabetes insipidus* and *diabetes mellitus*. In the former, the urinary discharges are greatly increased, amounting in some cases to gallons in a short period. The diabetes mellitus is instantly detected by the sweet taste of the urine—great quantities of sugar being carried off from the system in the urine. The unfortunate patient rapidly wastes, debility and weakness take place, his nervous system is greatly affected, and indigestion follows or accompanies the disease: the bowels are usually torpid, and the appetite poor or depraved. After a longer or shorter continuance of this disease in persons at all predisposed to consumption, a dry husky cough is apt to supervene, unattended at first with much expectoration, and rarely with pain; so that the attendants, and even the attending physician, may not suspect the existence of pulmonary disease until it has made perhaps fatal ravages. But in a little time the short breathing, husky cough, and rapid sinking of the chest, hectic fever and occasional chills, unmistakably inform us that tuberculosis and softenings have commenced in the lungs.

CATARRH IN THE BLADDER.

This disease is occasionally seen; and it is marked at first by the presence of thick, whey-like mucous deposits in the urine, which, upon standing a short time, separate from the urine, and show a dark cloud at the bottom of the vessel, emitting an offensive smell.

This symptom will often continue and increase when the discharges from the bladder are very profuse, and in some cases almost incredible amounts of mucus will be discharged from the bladder; at the same time great heat will be felt in the small of the back, weakness through and in front upon the lower part of the bowels; oftentimes swelling, soreness, and great debility, which is wonderfully aggravated by exercise. The suffering in many cases is very intense, and a burning heat is experienced in the bladder and along the urethra.

In some instances, the bladder will become ulcerated, and discharges of pus, mixed with mucus, will take place. These cases are more frequently met with in elderly persons than in those of middle life, yet they sometimes occur even in youth.

BLEEDING FROM THE BLADDER AND KIDNEYS, OR HÆMATURIA,

Is occasionally met with. It sometimes indicates the presence of stone in the bladder, &c.

I will not, however, enter farther into the details of kidney diseases, nor speak of "Bright's disease of the kidneys," but will only remark that all diseases of the kidneys and bladder have a wasting and debilitating effect upon the general system; in some instances removing far less water and urinary salts than nature demands, inclining to the development of humor in the blood, tuberculosis of the lungs, to the deposition of tubercles and to dropsy. And particularly where too much water is drawn off, consumption is induced; and there is a rapid shrinking of the body, wasting of nutrition, and accelerated decline of the powers of life. All diseases of the kidneys and bladder, if long-continued in those predisposed to lung disease, are apt to develop consumption. This form of disease should always receive proper and immediate attention, if we would avoid the pulmonary diseases consequent upon it. Nearly every case of disease of the kidneys or bladder, is perfectly curable if treated in season; but none should be long neglected.

CHAPTER XVI.

PULMONARY CONSUMPTION—ITS VARIETIES—(*Continued*).

DROPSICAL CONSUMPTION.

MANY individuals, usually those of phlegmatic constitutions, with a tendency to hepatic derangement or liver disease—those who have suffered considerable loss of blood, as from flooding in females, and especially persons of full habit, who have been influenced for a length of time by any depressing complaints or any obstructions of the system, rapidly incline to dropsy and dropsical consumption.

There is, however, a remarkable difference in different persons in this particular. One young female may suffer suppression of the menses, which shall be followed by a rapid attenuation of the whole body, debility, prostration, and a universal shrinking of the system, and these symptoms will be followed by cough, tuberculosis, and final consumption: while another, attacked by the same menstrual suppression, will be immediately disposed to bloating, swelling of the feet, ankles, and legs, and perhaps general dropsy. Very early in these cases we perceive swelling of the under eyelids—the complexion becomes a peculiar olive-color, and the skin has a shining appearance. When the cough supervenes, it is soon accompanied, in most instances, by copious watery expectoration, with rattling and wheezing in the chest, bloating of its surface, and irregular bloating at the pit of the stomach; the face is sallow, the eyes are sunken, the system debilitated, the breathing is short, and there is very often an inability to lie down on first going to bed, on account of a choking, suffocating, and rattling sensation in the chest; but as the night advances, the patient may be able to do so with comparative ease. In the morning, the feet and hands will be far less swelled, but the face more so, than at night. The plumpness of the patient's limbs and face, when the bloating is moderate, is apt to mislead his friends as to his true condition. An examination of the chest, however, soon

informs them of the rapid deterioration of the pulmonary tissues, warning them that, if relief is not obtained, destruction of life will follow. We must not confound dropsical symptoms which occur at the close of nearly all cases of consumption, with those which are presented where dropsy and dropsical consumption commence the disease.

Dropsical consumption is very alarming, and is another of those serious complications which the physician has to encounter in the treatment of pulmonary disease. But with proper remedies it may, in most cases, where the constitution is not broken down, be soon conquered, and the patient restored to health. Indeed, there are few instances of this disorder which fail to yield to these remedies when seasonably resorted to, unless there is not sufficient vitality or vigor left to respond to them.

Dropsical consumption in young persons, and those of naturally vigorous constitutions, may soon be arrested in its earlier stages; but in order to do this, the obstructions that have produced it must first be removed, the renal secretions must be restored, the hepatic disorders relieved—and in females the menstrual irregularities, if any exist, must be corrected. When dropsical consumption occurs in persons whose constitutions have been broken down by long-continued hepatic derangements, from residence in hot climates, from tropical fever and the depraving effects of mercurials,—or when it occurs in inebriates, persons broken down by debauchery and drunkenness—in elderly persons more or less fleshy, whose constitutions are weakened by age and depraved by disease, or by obstructions of the blood-vessels, or the great hepatic vessels, and chylopoetic or biliary circulation—it is a most formidable disease, and presents obstacles rarely overcome, in consequence of the want of constitution to sustain the energetic action of medicine, or to respond to health-giving impulses. In many of these cases we may succeed in removing the water, in alleviating the pulmonary symptoms, in silencing the cough, in subduing the irritation, and in removing apparently all obstruction. Still the patient does not get well—health is not restored, and all our best efforts are abortive. Yet in persons of pure constitutions, of middle age, and where the disease has not made too great progress, dropsical consumption is curable; and in all cases it may be greatly alleviated and life prolonged.

RHEUMATIC CONSUMPTION,

Having its origin from the poison that produces rheumatism, and the disorganizing effects of rheumatism itself, is of very common occurrence. In numberless cases this kind of consumption is preceded by attacks of rheumatism; so that in persons predisposed to consumption, these attacks may be considered as almost certain indications that consumption will ere long supervene, if proper remedies are not faithfully employed to avert such a catastrophe. Frequent attacks of acute rheumatism have a most debilitating effect upon the system, and waste the powers of life. Oftentimes at the close of one of these attacks, the lungs become suddenly affected by great difficulty in breathing; and finally a cough, attended by expectoration, commences. In many cases of lung affections, the patient experiences no pain whatever; but in rheumatic consumption it is very different,—a great deal of pain is experienced—rending and darting pain through the lungs, oftentimes excruciating, and this is continued through the whole course of the disease. It is in this form of consumption that we frequently meet with deposits of chalky matter in the lungs—pieces of which are frequently coughed up, and are very injurious and painful, mechanically tearing the lungs. The use of the inhaling-tube in the artificial expansion of the chest, is very apt to be followed and accompanied by severe pains in the chest. Remedies useful in rheumatism, when externally developed, will usually be found useful in all cases of rheumatic consumption.

SPINAL CONSUMPTION.

Consumption of the lungs is often produced by spinal disease. Sometimes this disease is located in the loins and small of the back; and by its depressing effects upon the whole system, and its breaking down the powers of life, sooner or later leads to pulmonary consumption. But in other cases the spine becomes affected between the shoulders, in the parts opposite the lungs, involving the roots of the nerves that lead to the lungs or walls of the chest, so that the lungs themselves are directly affected by the spinal disease.

It is often preceded by pain between the shoulders, of longer or

shorter continuance, and with greater or less intensity. In some cases the pain is terrible; in other cases the patient experiences only a cold feeling between the shoulders, and a cold spot there which seems almost always present. In some instances it is reversed, and he experiences a burning feeling along the spine and between the shoulders, which often spreads to the points of the shoulder-blades; frequently the pain extends from between the shoulders along both arms, even to the ends of the fingers, rising as far as the root of the neck. The least effort with the arms greatly aggravates all the suffering, and causes the pain to spread around the chest on both sides. Sweeping, lifting, and every effort of the arms and hands, will always greatly aggravate this suffering. Prickling sensations will be felt about the hands, particularly the fingers, as if they were asleep; and in some cases palsy will attack the hands and wrists and fingers—sometimes one hand, and sometimes both. In some instances the patient cannot feed himself, or use his hands in any manner whatever. He experiences great shortness of breath, and sooner or later the lungs become tuberculated. Sometimes the throat becomes affected and the voice entirely lost; chills, hectic fever, night-sweats, softening of the tubercles, purulent expectorations, rapid wasting of the body, and consumption—terminating fatally more or less rapidly—supervenes, unless the disease is removed by prompt and proper remedies.

Some cases of spinal consumption are attended with much pain and suffering; in others but little direct pain is experienced. I have generally found this form of consumption quite manageable and curable, if assistance is applied for before the general health is entirely broken, and before the bones of the back are involved in the disease.

In some cases where the affection of the spine is long-continued, the vertebra or bones of the spine become carious, and pieces of the rotten bone will pass through the ulcerated loins, and large abscesses will be formed, discharging great quantities of purulent matter. I have witnessed several of these cases; the suffering of the patient is terrible beyond description. Often all parts below the diseased spot become paralyzed.

I have known one instance where the whole spine for several inches at the loins, had been apparently entirely removed and absorbed, so that the person there was as flexible as a piece of india-

rubber. This person—a female—is now living, and in fair general health, but has been many years bed-ridden.

Of course, when the disease has progressed so far as to affect the bones of the spine, it becomes, in the present state of medical knowledge, wholly incurable.

CANCER CONSUMPTION.

Cancer occurring anywhere upon the human system, is a disease invariably occasioned by poison in the blood. Some forms of cancer, more or less early in their advancement, and very often towards their close, bring on pulmonary consumption; in many instances, apparently by the system becoming so pervaded with the cancer poison as to develop cancer in the lungs themselves; and, in others, so deteriorating the system and weakening the powers of life, as to cause the deposition of tubercles. If tubercles appear under these circumstances, when they pass into the softening stage and abscesses form, they are found to possess a cancerous character—to contain a pure cancer virus, and this disease usually terminates fatally. If a cure of cancer is proposed (which may very often be accomplished in the early state of the disease, and its determination to the lungs easily prevented before they have become actually affected), the lungs should be fortified and strengthened and expanded; efficient alteratives and purifying medicines should be used, so as to entirely remove, as far as possible, the cancerous poison from the blood; then suitable applications should be made to destroy the cancer itself. When these applications are properly made, both in kind and strength, a cancer may usually be wholly removed, and the patient restored to perfect health; which will always remain permanent by the judicious and continued use of suitable hygienic and preventive remedies.

I have seen a vast many cases of cancers entirely cured in the manner I have indicated. It will not do to attempt their extirpation by the knife; for in the case of true cancer, whether large or small, whether upon the fleshy parts, as the female breast, or elsewhere, if the extirpation is performed with the knife, the disease will almost certainly return; in fact, it is now generally conceded by the French surgeons that no true cancer is ever cured by the knife so that it will not reappear. But in the manner I have indicated, it may be cured

and perfectly eradicated from the blood—removed from its locality with all its body and roots, and never again trouble the patient in any form of manifestation. I have known cancers removed in this way that weighed six pounds; but large or small, occurring anywhere upon the exterior of the body, cancer is usually curable; and the consumption that it would in many cases bring on, may be entirely prevented. Even cases of consumption already commenced, have been entirely cured.

GRANULAR CONSUMPTION.

This is a peculiar form of lung disease, which sometimes baffles the skill of physiologists themselves in explaining it. Upon examination of the lungs after death, in those who have died of this disease, they are found to be studded with little grains, like kernels of rice; and they are occasionally seen in the throat, sprouting out from the tonsils. On looking at them, you suppose that the granulation is something sticking there—that it is a grain of rice or a bit of vermicelli; it looks like rice, is colored like rice, and is hard like a grain of rice. Upon pulling it off, however, you find it can be broken under the finger, and emits a fetid smell. I know of no symptom peculiar to this disease, by which it can be distinguished from some other form of tuberculous deposit. Upon examining the lungs and chest, they will rise pretty well; but the air-passages are more or less obstructed, still nowhere obliterated in the early commencement of the disease. There is a coarse and jagged sound, as if the air was cut up and made to pass over a rough grater, or something of the kind. Upon examining the roots of these granules, we will find inflammation and redness about their bases, although they show nothing of it themselves. The base is swollen, red, and hard; and directly out of this, like the point of a pimple, projects this miliary granulation, as it is called. It is undoubtedly produced by humor, by poison in the blood, and is susceptible of cure when early treatment is adopted. In these cases, free expansion of the lungs, change of air, remedies to purify the blood, to remove all inflammation and excitement from the lungs, to vivify the general health, renovate the constitution, build up the strength, &c., go a great way in removing the disease, and in a vast many cases it may be perfectly and permanently cured.

CHAPTER XVII.

PULMONARY CONSUMPTION—ITS VARIETIES—(*Continued*).

SKIN PULMONARY CONSUMPTION.

I REMARKED in regard to *worm consumption*, that the announcement that there is such a disease, might startle many persons. The statement that there is such a disease as *skin consumption*, may equally surprise them. It is nevertheless true, that in very many instances, affections of the lungs and throat are induced in persons in any degree predisposed to pulmonary disorder, by the transfer to them of true skin disease.

The fact must have been often noticed by many of my readers, that a person will be for a length of time subject to some form of humor or skin disease, which will at length disappear from the surface and apparently "get well," when, soon after its disappearance, disturbance of the lungs or throat in some form—perhaps a sore throat, or bronchial symptoms, or shortness of breath, or a cough, or asthma, or bleeding from the lungs—will occur. A familiar example of this is often seen in measles (a true exanthematus skin disease); when they "strike in," as it is termed, a severe disturbance of the lungs is often the consequence. In this, and in other cases of the subsidence of skin disease without being *cured* or the poisonous cause removed from the system, that cause first manifesting itself in the skin, has been transferred from the skin to the lungs. By this means, true consumption is often developed. An acquaintance with these skin diseases, and of the correct mode of treating them both on the surface and on the lungs, is exceedingly important. Indeed there is no branch of medical inquiry more interesting, or that can be made more useful to the student of pulmonary disease, than a correct knowledge of skin diseases and their complications. All persons should have a sufficient knowledge of them to be fully aware of the intimate relation there is between the lungs and the skin, and the liability there

is that fatal disease of the former may follow improperly treated disease of the latter.

It is not my purpose here to write a treatise on skin diseases. They are so numerous, and their complications so multiplied, existing in such diverse forms, from the simple rash or pimple which appears to-day almost or quite unnoticed, and disappears to-morrow, leaving not a trace of its visitation, to the most obstinate, horrible, malignant, and fatal distempers of any that afflict the human family, that a volume might be written upon them. I shall only call attention to a few of those most common and familiarly known, and which most frequently, by falling upon the lungs, develop consumption.

Some persons, in early life, will have "*scald-head*;" and this disease will follow them, more or less, far into adult life. *Salt-rheum* is the abiding enemy of others, and appears on the hands and in the bends of the knees, elbows, &c. This disease is usually much the most violent in spring, fall, and winter. Any great changes of weather generally aggravate it, when it produces blisters on the hands, chappings, swellings, and desquamation.

Other persons have large red blotches on different parts of the body, followed by sores; in many instances, swelling of the nose, intense redness about some portions of the face; in others, large brown spots may cover it more or less. Then we have *ringworm* and *tetter* and *hives* and scaly *leprosy*, and some complication of these primitive skin diseases. Some of these diseases never occur except in hot weather, others never appear save in winter or in the changeable and cold seasons of the year. Hives and prickly-heat we often find entirely disappearing on the approach of cold weather. *St. Anthony's fire*, or *erysipelas*, in its many forms, is a true skin disease. It is usually accompanied by itching and burning heat, and is greatly aggravated by exposure to cold winds or excessive warmth. Many kinds of diet will excite it when dormant, and send it to the surface to exhibit its utmost powers of mischief and annoyance. Sometimes the person will feel as if eaten up by ants. The great majority of these diseases are rarely dangerous while confined simply to the external surface of the body and limbs; though sometimes they produce great swelling of the legs, and a whole host of complaints, giving rise to much inconvenience and suffering. When they cover the face, they often convert it into a most repugnant mass of disease. Yet they are very seldom fatal while re-

maining external: in fact, many persons seem to enjoy the best general health, and that during many years, though the subjects of some disgusting skin disease.

No one will deny or doubt, that nearly all skin diseases are produced by poison in the blood; and, I repeat, while they continue on the surface, they furnish useful outlets to this poison, and are not, strictly speaking, dangerous. In many cases, these skin diseases after a time retire from the surface, or they may be driven from it to the internal organs by the application of injudicious remedies, and thus produce disease upon any part where their terrible humor rests.

But when any of these humors retire from the surface, the external outlets being thus closed, they fall upon some of the internal organs; sometimes on the bowels, at others on the stomach or liver, but most frequently on the lungs. For example, persons subject to salt-rheum, on its sudden disappearance from the hands or elsewhere, often very soon have a severe attack of asthma, or a stricture across the chest, or shortness of breath, or sore throat, or hemorrhage from the lungs, and very usually a cough, more or less severe, accompanied by more or less expectoration. The poison of the salt-rheum has gone in upon the lungs or throat, and settled upon the membrane that lines them. If the humor reappears on the surface, usually the lungs and throat are at once relieved. But if it remains for a sufficient length of time on these organs, terrible mischief is the consequence; seated asthma or bronchitis, with cough and discharges from the lungs more or less profuse, being established. The mucous membrane, lining the air-passages and cells, becomes the seat of chronic inflammation, thickening, and perhaps of ulceration. It thus becomes, of course, disqualified for the perfect performance of its proper office; and the power to aerate and circulate the blood being impaired, a foundation is soon laid for tuberculosis, or some other serious disease in the substance of the lungs. If tuberculous deposits already exist, or the patient is strongly predisposed, hereditarily or otherwise, to phthisis, a fatal form of consumption is soon developed.

When salt-rheum has existed for some length of time, and the whole system has, to a considerable degree, been brought under its influence, it not unfrequently occurs that it will appear on the lungs without wholly disappearing from the surface; and the patient will have cough, asthma, bronchitis, bleeding, dyspnœa, and perhaps sink

into true pulmonary phthisis, while at the same time the humor remains more or less on the surface.

Now, what is true of salt-rheum in these respects, is also true, to a greater or less extent, of nearly all other skin diseases and humors. Indeed, I have no doubt, that nearly or quite all the external humors may be, and are, reproduced on the internal organs, and particularly on the lining membrane of the throat and lungs.

I will not dwell farther upon these humors or their varied complications. But I will only remark, that while there may be some forms of skin disease exceedingly malignant, baffling the medical profession in curing them, nearly all of those which commonly prevail, and from which most is to be feared for the lungs, are perfectly curable, without any injury to the system, and without leaving any trace of their poisonous trail. Those disagreeable eruptions in the form of sores, blotches, boils, pimples, rash, chappings, cracks and fissures in the skin, scales, &c., &c., so annoying and often so painful, as well as those cruel deformities that so frequently disfigure the face, may be entirely removed and permanently cured.

There are thousands suffering from these affections, who will agree with me that, viewed simply as external skin diseases, they must be regarded as of no little importance; but when it is considered that they are so liable to recede upon the vital organs and occasion such incalculable mischief, as I have stated, our estimate of their importance must be greatly enhanced. We see at once the exceeding danger of any mode of treating them, particularly those external applications so frequently used to "dry them up" and "scatter them," which shall tend to drive them from the surface, without at the same time employing measures to eradicate them from the system; and particularly to guard the internal organs against their attack.

Let me add, that not only are these humors curable while confined to the skin or external surface, but usually the mischief they occasion in the lungs may be arrested, and the lungs and throat completely relieved from their poisonous influence. Those, however, who find their lungs in any degree disturbed after the disappearance of a skin disease, should not lose an hour in seeking efficient relief. Every hour's delay increases their danger, and lessens the probability of escape from serious disease. Still, if *skin pulmonary consumption* has become actually developed, or asthma long seated has supervened upon skin disease, the sufferer should not despair; for, unless the

lungs are too far disorganized and the constitution too much broken down, they may be saved. The diseases in this form are not incurable.

Before closing this chapter, I would mention, that pulmonary consumption may be, and sometimes is, induced by the influence exerted upon the general system by certain forms of skin disease. This occurs where the disease on the surface has resulted in large sores or abscesses, attended with great and long-continued discharges. From this cause, there is sometimes an immense drain upon the system, which eventually so weakens the patient and breaks down the vital powers, as to vitiate all the great processes of life and develop tuberculosis. Then, again, consumption sometimes results from the sudden healing up or suppression of such sores or abscesses. In these cases, the escape of the poisonous humors by their established channel being suddenly prevented, they flow to the lungs, and set up disease there. The skilful physician will carefully inquire into all the facts and indications of the case he is called to treat, and adapt his treatment to them.

TREATMENT OF SKIN CONSUMPTION.

Where we have reason to suspect the presence of humor or latent skin disease in the system; or where these diseases have once occupied the surface of the body, and thence retired to the interior, our first duty is, if possible, to bring them to the surface; and when this is accomplished, we shall have made great progress towards the cure of any disease produced by them. When they are once established upon the surface, remedies may be employed which will purge the blood of the poisons, and then suitable local applications will rapidly complete the cure.

It has been my task and pleasure to treat a vast number of skin diseases, external as well as internal; and I have usually found that proper remedies, timely applied, will insure a prompt and perfect cure.

CHAPTER XVIII.

PULMONARY CONSUMPTION—ITS VARIETIES—(*Continued*).

SPERMATIC AND UTERO-PULMONARY CONSUMPTION.

Each successive period in the existence of the human organization—its advent, its unfolding, its maturity, and its decline—has features of special interest, attraction, danger, and disorder peculiar to itself. But there is one period invested with special importance, above perhaps all others; one in which a remarkable change takes place in the bodily constitution and in the moral affections. It is the period when are rapidly unfolded those latent functions and susceptibilities peculiar to the sexes. From this time the individual becomes physically and mentally a new being; the nervous system has imparted to it a quickened sensibility, the cheek a ruddier glow, and the eye a new brilliancy and a deeper intensity of expression; the form rapidly develops, and the voice changes to a deeper bass in the male and a purer treble in the female; the opposite sexes assuming consciously new relations and discovering each in the other new attractions, become each to the other the source of the highest inspiration and the tenderest sentiment. In a word, at this period the being passes at once from childhood to manhood and womanhood.

The influences under which the system is brought by these changes, act powerfully upon the voice and lungs, as well as upon the general circulation of the blood. As we have seen, the brain also, in common with other organs, feels the wonderful effects of this new life; thought is quickened, the imagination is fired—sentiment, hope, and courage are inspired, and fancy paints the future in colors of romantic beauty: the whole being becomes instinct with a higher vitality.

But while these new influences so beautifully unfold the child into

the man and woman, they bring with them necessarily peculiar liability to new forms of derangement and disease. If from any cause the newly-awakened functions are arrested and withheld from complete development, or are overtaxed and debilitated, the effects are truly deplorable. The whole body at once feels the shock; the nervous system is prostrated, the strength and flesh decline, the mind becomes impaired, and the vital powers all seem to sink; and here, in this state, it is that, if there is the slightest predisposition to lung disease, the enfeebled sufferer rapidly declines into what may be properly called in the male "spermatic," and in the female "utero-pulmonary consumption."

It has been my unhappy lot to witness many instances of the most distressing results from the causes to which I have referred. The influences upon the brain and nervous system are especially deplorable, producing mental debility, idiocy, and insanity. They also produce a most disastrous effect upon the action of the heart, causing palpitation, fluttering, jumping, and sometimes positive organic disease; indigestion, sometimes in its worst forms, frequently accompanies the other derangements.

SPERMATIC CONSUMPTION.

Without entering at length into the causes and symptoms of spermatic disorder (which would be hardly consistent with the design of this work), let me say that in thousands of boys and young men, the foundations of true pulmonary consumption are laid by those pernicious habits and practices whose immediate results are experienced in the disease known as *spermatorrhœa*. The practices referred to are much more prevalent than is dreamed of by parents and guardians generally, and they are not wholly confined to the male sex. The terrible mischiefs entailed by them can hardly be overstated. The whole system is thrown into confusion—the brain, the nerves, the spine, the heart, the digestive organs, the liver, and, sooner or later, the lungs, all suffer; while, at the same time, a local irritation or inflammation, resulting, in many cases, in positive organic lesion, takes place, which obstinately perpetuates the mischief even after the exciting causes have been abandoned.

When the local destructive disease to which these causes give rise, has been established, we often find, at rather an early period,

great weakness of the voice, great loss of strength, weariness upon very moderate exercise, loss of color in the cheeks, and a bluish lurid stain upon the complexion. In those predisposed to lung disease, a husky cough—quite obscure at first—shrinking of the chest, stooping of the figure, loss of courage, loss of animation, dread of society, great prostration of the nervous system, hectic fever, chills, and night-sweats, sooner or later clearly announce the establishment of the reign of the destroyer; and this occurs not unfrequently in the most beautiful and the most promising of our youths.

This disease is rarely ever discovered in low life, among the laboring population; but occurs more among those in the middle ranks of life, who are in easy circumstances—among the tradesmen, students, and sedentary and literary persons. It is rarely ever found in married persons, unless contracted previous to marriage, or unless some peculiar circumstances intervene between the married pair. The exceptions are found where great excesses take place, whereby the constitution of the offending parties is injured.

CURABILITY OF SPERMATIC CONSUMPTION.

Consumption induced by these influences, is usually obstinate and difficult to cure; still it is not incurable. I have treated many cases of this form of consumption, and generally with success; indeed, uniformly so, when the lungs or heart have not been much disorganized. It is of course necessary in these cases to arrest and cure the distinctive local disorders; and to do this, besides the employment of proper remedies, it is absolutely essential that all the inciting causes I have adverted to, should be totally abandoned and removed. Unless this can be accomplished, there is but little or no hope of restoring the patient or saving him from the deadly embrace of consumption.

But I will add, that it is not usually difficult to secure this result, as nearly every instance of this complaint that has come under my treatment, I have been able to wholly cure. The severest heart troubles, when all hope of life seemed to be lost, and the gravest disorders of the nervous system, have been fully and permanently cured. Impotency, in nearly all cases, can be perfectly relieved. These diseases are truly formidable and hopeless to those unac-

quainted with the true and successful mode of treatment and the true remedies. But when fully understood, they are eminently curable.

UTERO-PULMONARY CONSUMPTION.

The records of mortality disclose the fact that a greater number of females fall victims to consumption than males. There are many reasons why this is so, particularly under the diverse influences which, in the existing state of society in Christendom, act upon the one sex and the other. The female has by nature a more delicate constitution, and less strength and vigor than the male; she passes the most of her life in-doors, in a less pure and invigorating air, and her habits are all more sedentary and less active. These are the general rules, and they constitute some of the reasons why women, as a class, are more subject to lung diseases than men. But the reason to which, in this chapter, I desire to direct special attention, is one resulting from the female constitution itself, presenting one of the most influential causes of pulmonary disturbance that exist.

In those peculiar influences which are reflected from the female organization upon the general system, when it is in a normal and healthy condition, the physiologist discovers that which contributes vastly to the buoyancy and happiness, to the glow and splendor of female life. But let disease invade this organization—and from its nature and offices it is peculiarly liable to disease—and then the influences which flow from it become as truly sources of the most deplorable mischiefs; the whole system is often rapidly debilitated, enfeebled, and thrown into disorder and disease.

The symptoms which follow an interruption or disturbance of the periodic function, for example—a common form of deranged action—are marked and generally very distressing indeed,—if protracted, most dangerous and destructive of health—often of life: disorder of some of the great vital organs—the brain, the lungs, the heart, the liver, the stomach, the bowels, the kidneys, &c.—being almost certain to become developed sooner or later. Intense headache, rush of blood to the head, insanity, palpitation of the heart, enlargement of the heart, thickening of its walls or valves, and dyspepsia in some of its varieties, dropsy—general or local—great nervousness, debility,

emaciation, torturing pain in the back, sides, hips, and pelvic region, &c., are among the consequences of the disordered function to which I refer. The appetite is often capricious, the food is badly digested, the bile is grudgingly eliminated and of a vicious quality, the bowels are usually confined, there is a distressing sensation of sinking, weight, oppression, and bearing down, the complexion becomes clouded and cadaverous, the eyes lose their lustre, the spirits sink, the renal function is imperfectly performed, the nerves are unstrung, and in fact all the springs of life seem thrown into confusion.

In this most unfortunate condition, Nature, at stated intervals, struggles to resume the supremacy; and then, when unsuccessful, the sudden faintings, the nervous confusion and mental distress—deepening often into hysteric fits—the almost insupportable pain, the cold surface and extremities, the intermitting pulse, the palpitating heart and almost arrested circulation which occur, show the terrible influence of this struggle upon the nerves, the brain, the heart, and circulatory system. In some cases, there is a sudden accession of jaundice—yellowness of the skin and eyes, bloating of the face, blueness and swelling under the lower eyelids, indicating the disturbing influence exerted upon the liver and the whole biliary circulation, involving also the capillary system, as seen in the disposition to dropsy.

As will readily be supposed, the lungs cannot escape the consequences of this fierce and destructive struggle. They, in fact, often become the principal sufferers, and through them is struck the most fatal blow at the life of the patient.

In those in any measure predisposed to pulmonary consumption, or bronchial affections, we frequently notice bleeding from the lungs occurring at the catamenial period. Sometimes the bleeding will be slight, at others continuing through the period, and in quantity proportioned considerably to the plethoric or attenuated condition of the patient. Of course, these discharges of blood from the lungs are very dangerous, indicating congestion of these organs and a very great disposition to tuberculation. Where this hemorrhage takes place, it is frequently followed by a dry hacking cough, husky voice, rapid emaciation, prostration of strength, and short hurried breathing, experienced upon every attempt at labor or exercise. Total loss of color in the cheeks, shrinking of the face, a staring, lack-lustre glare of the eyes, and pearly color of the cornea; slight chills, fever,

and night-sweats, and diminished appetite, soon succeed; all clearly pointing to the terrible work of destruction going on in the citadel of life, from the influences produced by the disordered female constitution.

Scarcely any case which can be presented, is more calculated to excite the sensibilities and arouse the energies of the benevolent physician, than that of the female suffering under the symptoms I have described. His first and most strenuous efforts will be directed to restore the suppressed or interrupted function; for, if he is thoroughly informed, as he should be, he will know that unless this can be done, he can do little to afford any substantial relief; that the system must steadily sink into the fatal embrace of positive organic disease of some of the great vital organs; and that, if there is the slightest predisposition to pulmonary affection, the lungs will almost inevitably become the seat of that disease.

The whole circle of the symptoms I have described, shows conclusively that disease of the lungs may, and often does, originate in disturbance of the uterine functions. Other evidences might be presented. For instance, we usually find at the return of each period, when the lungs have taken on disease, that the pulmonary symptoms will be greatly aggravated. The cough will be more severe, the shortness of breath will be greater, chills oftener, fever more intense and prolonged, conclusively proving the uterine influence at these periods.

I have thus dwelt upon the influence on the general system, and the lungs in particular, of the disorder I have here described, because the function involved in it seems to be more intimately connected with the general system—with the health of every organ of the body, with all the conditions of female life, and more inclining to pulmonary consumption and tuberculosis than any other form of female disease. The female is, as is well known, subject to other disorders peculiar to her sex, but they tend less to exert a constitutional influence than the one I have considered; and although they are, some of them, of a serious character, and produce a great deal of suffering and debility, yet they do not seem to exert the same tendency towards disease of the lungs. It will not be necessary, therefore, that I should do more than advert to one or two of the more common of these disorders, and to point out the danger there is that they may affect the lungs.

INFLAMMATION, ULCERATION, AND PROLAPSUS OF THE UTERUS, MAY LEAD TO CONSUMPTION.

It is not my purpose to give here any lengthy description of the various affections of which the uterus is the seat; but simply to refer to them generally as the cause or occasion of pulmonary disorder. The diseases of this organ, though often obscure, and existing in many females who do not know or suspect the cause of their ill-health, are nevertheless tolerably well understood by most intelligent physicians, at least so far as their more prominent symptoms are concerned; although their treatment, I must say, is almost universally useless, or worse. But what is not so generally understood by physicians, and is scarcely known at all by others, is that in every case of uterine disorder, of whatever form, there is extreme danger that the disorder may be thrown directly upon the lungs, or that disease in the pulmonary organs may be developed by the prostrating, depraving, destructive influence of the uterine derangement upon the general system, especially in those predisposed to consumption. For example, in cases of ulceration of the uterus—not a very uncommon affection—the purulent product of the ulceration is more or less absorbed and carried into the general circulation; becoming thus a most mischievous and corrupting poison in the blood. The blood thus corrupted, is filtered through the lungs, and of course is liable to set up disease there. Then, again, this ulceration occasions an exhausting drain upon the system, prostrating its strength, and so diminishing its vital forces that the great functions of life—nutrition and excretion—cannot be perfectly carried on; so also this ulceration throws the nervous system into confusion, impairs digestion, often causes extreme pain in the back, sides, hips, pelvis, shoulders, chest, head, or elsewhere, disturbs the heart, causing palpitation and confusion of the circulation, &c., &c. Then both ulceration and inflammation are almost always attended by more or less "falling" or displacement, in some form, of the uterus. When this takes place, besides the symptoms ordinarily recognized, such as pain in the back, hips, and lower limbs, a sinking feeling at the stomach, a dragging down, heavy sensation in the pelvis, &c., there is another, almost always present, showing how direct an influ-

ence is exerted by *prolapsus* upon the lungs, but which seems to have been strangely overlooked: I refer to *difficulty of breathing*, *short breath*, *a feeling of weakness* in breathing, as if it were impossible to fill the lungs with a *satisfactory breath;* with this there is a tired, dragging, weighty sensation about the shoulders and top of the chest in front. These symptoms indicate that the function of respiration is impaired, as it certainly often is in *prolapsus uteri;* and the explanation is this:—The organs which occupy the abdomen, with the liver, stomach, spleen, &c., constitute, as it were, the foundation upon which the diaphragm, or *midriff*, lies, and upon the diaphragm rest the lungs and heart. *Breathing* is accomplished in part by the alternate rising and falling of the diaphragm—thus by turns enlarging and diminishing the capacity of the chamber occupied by the lungs. The diaphragm being a broad, thin muscle, arched upward, has the power, by contracting, to move *downward*, but not upward; it being, after it is drawn downward, carried back by the contraction of the abdominal muscles pressing the contents of the abdomen upward against it. Now, if any of the organs occupying the abdomen are thrown downward out of their natural position, it is evident that the power to thoroughly expel the air from the lungs in respiration, by carrying the diaphragm upward sufficiently, must be impaired. This is usually the true state of things when the womb has fallen from its natural position. I need not say, that if *respiration* is impaired, the health of the lungs is endangered, and consumption in some form, liable to be induced. In fact, there can be no doubt that any of the symptoms of uterine disorder may tend to lay the foundation of pulmonary consumption.

What is true in the respect above noticed of ulceration, is true also of simple chronic inflammation of the uterus, with its attendant disorders, leucorrhœa, obstructed, painful, or suppressed catamenia, &c. Where the female is not the subject of any hereditary consumptive taint—has large, strong lungs, a full chest, an erect figure, and is not in any degree inclined to consumption—where the constitution is not at all scrofulous, nor the temperament lymphatic, disorder of the uterus may exist, and the lungs escape entirely. But where there is a small chest, or weak lungs, or a scrofulous habit, or from any cause a predisposition to lung complaint, then there is peril; and there should be no delay in seeking speedy and permanent re-

lief, and that by a system of treatment which shall subdue and remove the disease of the uterine organs, and at the same time fortify and guard the lungs against injury or attack.

CURABILITY OF FEMALE DISORDERS.

As the result of a very considerable professional experience with the female diseases I have been considering, I am most happy to record the fact that they are usually perfectly curable. I have met with few cases of suppressed or interrupted catamenia, or of prolonged sickness, flooding, ulceration, inflammation, or displacement of organs, in which I have not been enabled to completely restore the patient to health. None of the disorders incident to the female organization are in themselves incurable, save perhaps only cancer, and some other malignant tumors and degeneration in the internal organs. I speak thus confidently, because I draw my conclusions from facts derived from my own practice, and therefore from personal observation. And here let me say, that with the removal of the local causes of disorder, not only will all the inconvenient and distressing symptoms I have described disappear, but nature will usually resume her great function where it has been suspended, and the childless wife realize her deferred hopes in the joys of a healthy and happy maternity.

It is, of course, extremely hazardous, particularly for a female belonging to a consumptive family, who is subject to a cough, who has weak lungs, a small chest, or a "delicate constitution," or who from any cause is predisposed to weakness or disease of the pulmonary organs, to disregard or neglect any of the indications of disorder peculiar to her organization. If she is so unwise as to do so, she will almost inevitably, sooner or later, and usually in a little time, find herself the victim of "uterine pulmonary consumption." But while the intelligent and sympathizing physician will guard his patient, if it be possible, from sinking into the obstinate power of this disease, he will not abandon her case as hopeless, if she does so. She may yet be saved by the judicious and faithful use of appropriate remedies, before the lungs have become so far disorganized, and the constitution so much broken down, as not to leave sufficient vital power adequately to respond to the required treatment. I have, in the course of my practice, had very many of these cases

to treat; and from the success which it has been my happiness to witness as the result of the means employed, in complete restoration of those who had despaired of health, I would bid this large class of sufferers to take courage. Your condition is not beyond remedy. There is relief to be had from all those ills, of which the pain and suffering, mental and bodily, are known only to yourselves.

CHAPTER XIX.

PULMONARY CONSUMPTION—ITS VARIETIES—(*Continued*).

CONSUMPTION PRODUCED BY FEVER SORES, WHITE SWELLING, DISEASES OF THE BONES, FISTULA, HIP DISEASE, LUMBAR ABSCESS, ETC.

A GREAT many cases of consumption commence with diseases of the bones, especially in those predisposed to pulmonary affections; and instances occur even in those not so predisposed, if disease of the bones is long continued.

White swelling is a scrofulous disease, located upon some of the joints—usually the knee, hip, or elbow. It is often attended with excessive pain, and is usually followed sooner or later by a formation of abscesses and decay of the bones. In some cases, one or more of the bones of the leg or arm, or elsewhere, become diseased, and will mortify and die; and in the process of exfoliation, or separation of the dead from the living parts, large abscesses will be formed, and very serious injury to the whole system will result. This form of disease is called *necrosis* of the bones. Sometimes these abscesses will continue for years; and finally, nature, or the art of the surgeon, will remove the diseased or dead bone, the abscesses will heal, and the patient recover his health. I should remark, that cases of *white swelling* are sometimes found in which abscesses do not take place. But in these cases, the effects felt in the general constitution—the prostration of strength and the wasting of flesh—are usually quite as great as where abscesses do form and break.

Hip disease is frequently seen. It commences with pain and swelling about the hip-joint; and often steadily progresses until the hip is distorted and apparently thrown out of joint, and extensive abscesses are formed. It is not always fatal, though sometimes so; but in some cases, after the disease seems to have expended its force, and the joint has been destroyed or disorganized to a greater or less extent, it disappears, leaving however the patient a cripple for life.

Lumbar abscess is another mode in which disease manifests itself. An abscess forms in the lumbar region—that is, in the "small of the

back," usually involving to a greater or less extent the bones of the back. It is accompanied by great pain usually, and terrible wasting of the flesh and strength. The discharges from these abscesses are sometimes very great, and not unfrequently the patient becomes bed-ridden.

Fistula in ano is not an unfrequent disease. It consists in the formation of an ulcerous abscess, that sometimes perforates the rectum, extending from the perforation down on the outside of the wall of the rectum, and breaking externally near the anus or lower extremity of the back passage; often it does not perforate the rectum, but is liable to do so if long neglected. When such an abscess occurs, a fistulous opening or channel is established in the track of the abscess, from which a purulent discharge takes place, and the contents of the rectum often pass. It is attended with great pain and soreness, and often swelling; and will frequently continue for years to annoy and harass and distress the sufferer. Fistula occurs from a variety of causes: sometimes from severe and protracted constipation of the lower bowels; sometimes from long-continued and neglected piles, &c. But whatever the cause may be in any case, there are always indications of great depravity of the constitution. Those who have suffered from this disease, need not be told that it is painful and annoying.

In all these manifestations of disease—fever sores, white-swelling, abscesses from disease of the bones, lumbar abscess, hip-joint disease, fistula, &c., all belonging to the same pestilent family—there is great degeneracy of the constitution; and if the persons affected by them are predisposed to consumption in any degree, unless the original disease is removed, the wasting of the system by them, the deterioration of the general constitution, and the prostration of the general health will so reduce all the vital forces of the system, that tuberculosis of the lungs will usually take place; and then, if timely aid is not secured, we may expect a fatal issue. There are hardly any diseases to which the human system is subject, that require, for their successful treatment, more mature judgment or higher medical skill, than those under consideration. It is in these cases that the efforts of the skilful and experienced physician and surgeon, will often result in the greatest medical triumphs. If the lungs have become diseased, operations for the cure of fistula, or amputations for the removal of limbs affected with white-swelling, must not even be

thought of until we have first relieved the lungs and placed them in a state of health; because, if the lungs are diseased, and, by a surgical operation, parts discharging great quantities of pus are removed, and the issues that have been long open are dried up, the whole current of purulent secretions will be thrown upon the lungs; and this, together with the shock to the system, caused by the operation itself, will usually bring on a fatal termination in a very short time. I have witnessed many cases where surgical operations have been performed in the amputation of limbs, or the attempted cure of fistula by cutting, when, at the same time, the lungs were affected, and in all of them there has occurred a rapid increase of pulmonary symptoms, followed by the death of the patient far sooner than would have taken place had the diseased limbs been allowed to remain untouched by the knife of the surgeon. This remark, however, does not apply to cases of dead bones, which may sometimes be removed without exasperating any lung affection. But in all cases it is indispensable to fortify the lungs, so that in no contingency shall they become diseased.

In 1847, a gentleman called on me from the neighborhood of Keene, N. H. His left elbow-joint was enormously swelled, and an abscess had formed from which were discharged great quantities of pus. The arm above the joint was emaciated apparently to the mere bone. He had at the same time a very bad cough, with purulent and bloody expectorations. He had received conflicting advice on the subject of his arm. The most experienced surgeons, such as Dr. T—— of Keene, advised to let it alone, as all experienced and judicious physicians would have done. I advised that the arm be not removed, and that no attempt be made to heal up this great issue until the lungs were cured. He followed my advice. I gave him such remedies as I thought best under the circumstances; advising tonics, pure air, and pulmonary medicines. I strongly urged him to have no operation performed upon the arm. He returned to New Hampshire and recovered his health. His lungs were soon relieved, and I believe his arm got well. In all these cases, the cure must commence in the lungs and in the general constitution of the patient. His blood must be purified, degeneracy arrested, and its poisons removed, or a cure will not follow. But, by a course of treatment calculated to secure these ends, these diseases are generally curable.

The late Dr. John A. Swett, in his work on chest diseases, gives

the following cases, which beautifully illustrate and prove what I have said in regard to pulmonary consumption, in a great variety of cases, beginning in a part of the system far from the lungs, and ending in the lungs themselves—terminating in true tubercular consumption. He says in his *Treatises on Diseases of the Chest:* "A medical gentleman died in this city during the past year, who had suffered for a long time with symptoms of disease of the urinary organs and of the rectum. This disease was found, after a post-mortem examination, to be a cancerous affection of these organs; at the same time the lungs were found full of cancerous deposits. Yet neither the patient, nor the intelligent physician who attended the case, ever suspected any pulmonary disease." He gives another case equally striking:—"I remember the case of a young lady whom I attended many years ago, which made a great impression on me. She was suffering from pain in the head and from chronic diarrhœa. She emaciated rapidly, had hectic fever, but never any symptoms of pulmonary disease: no cough or pain in the chest existed, and the respiration was easy and natural; yet after death the lungs were found full of tubercles beginning to soften." The first was a case of cancer consumption. The second a striking case of bowel and brain pulmonary consumption.

There is perhaps no class of disorders having their seat in other parts of the system, that so severely threaten the lungs as the affections I have adverted to in this chapter. When they occur, there is invariably great danger that disease will develop itself in the lungs in the natural course and progress of these affections. There is still greater danger that it will do so when any means are taken to "scatter" or suppress swelling, or heal abscesses, or indeed when any treatment is adopted calculated to subdue or dissipate any of the manifestations of humor, unless at the same time the most sedulous care and the most efficient measures are taken to guard the lungs against attack, and maintain them in the full and uninterrupted performance of their functions. These diseases should never be neglected. Besides being liable to develop disease in the lungs, they are most distressing and dangerous in any of the manifestations I have described. It is possible to treat them in such a manner as not to endanger the pulmonary organs, and at the same time arrest their destructive course, and rescue the patient from their deleterious influences.

I have now given a summary of the primitive forms of consumption, if I may be allowed the expression, or a description of those diseases originating in the lungs themselves or in distant organs of the body, that finally terminate their course upon the lungs, each presenting in their origin distinctly marked characteristics, and so plainly differing from each other as to authorize a separate classification, and demand some different remedies in their treatment. Although at the very close of life, consumption seems the same disease in almost every person who dies of it—and many times an examination of the lungs themselves after death will hardly justify making so many distinctions in the disease called consumption—still, the original variety, the primary cause and the primary seat of the disease, and its peculiar influences upon the system, will mark and modify the whole course of the sickness almost to the very close of life.

EVERY CASE OF CONSUMPTION AN INDIVIDUALITY.

It should be borne in mind, that from the twenty-two varieties of consumption I have described, result almost an infinity of complications and combinations, so that it is extremely rare that you will ever see two cases of pulmonary consumption so nearly alike but that a close observation would detect differences. I remind you of this in order that you may recollect that every case of consumption is an individuality differing from every other in some particular, although agreeing with all others in general points of resemblance. This knowledge will lead you to avoid grouping together *classes* of patients, and to investigate each case carefully in all its own peculiar features, overlooking not a single symptom by which a difference is established; prescribing in the first place all the remedies requisite for the general points of agreement between this and every other form of consumption; and then prescribing the particular remedy required to overcome the symptom or condition in which the case in hand is peculiar. Thus every case will call for all your learning, your observation, your powers of analysis, and your professional acumen to determine its whole condition and the totality of its present and prospective lesions. This done, the same care, and the same regard to the individuality of the case, will influence you in selecting the remedies necessary for its prevention and its final cure.

THERE IS NO "SPECIFIC" FOR CONSUMPTION.

It must be evident from what has been said in the preceding pages, that for the successful treatment of lung diseases, it is required that we exhibit far different remedies in some forms of consumption from what we do in others, if our practice is to be scientific, rational, and successful. If, however, we propose to treat lung disease on "speculation," then we will employ one remedy for all forms of consumption, when, of course, failure and disappointment will cover us with contempt and shame; then we shall adopt some "cure-all," and, boasting of its "never-failing power to cure," prescribe it indiscriminately in all cases, until repeated failure demonstrates its uselessness, and drives us to look out for some other "specific" to have its fashion and its day, and in turn to be thrown aside. Such a course, which is too common, tends to make the very name of physician, in connection with the treatment of consumption, a term of distrust and reproach.

By carefully pursuing the history of the varieties of consumption that I have described, the intelligent reader and the intelligent physician will most readily understand why no single remedy has ever yet been discovered that will prevent the commencement of pulmonary consumption, or cure it after it has once taken place. Hence the utter and total failure, in all times and in all circumstances, of the attempt to cure pulmonary consumption by one remedy. The disease itself is so diverse and so varied, its preceding causes are so multifarious, the progress and changes made in the system and upon the lungs are so multiplied and conflicting, that it is truly impossible even to conceive of one medicine that shall alone cure pulmonary consumption. As well might we suppose that ice could be so modified that it should at the same time heat our houses and congeal our creams, or cook our food and freeze it at the same moment, as to suppose that we can discover one remedy that singly and alone can restore the distorted chest to perfect symmetry, expand the lungs, restore the general strength, purify and enrich the blood, and diffuse health and life and vigor throughout the entire system. Such a single remedy has never been known, and seems in the nature of things to be even an impossibility. The terrible charlatanism and empiricism, which have travelled the world over among high and low, has de-

rived its origin and its perpetuity from the great confusion that has prevailed upon the subject of consumption itself, more than any thing else,—a confusion which I hope this treatise will serve in some measure to dispel, and so clear the noble science of medicine and the art of healing from most unmerited odium, incurred not from any want of efficiency or curative powers in medicine, nor from the impossibility of obtaining the mastery over nearly every case of pulmonary consumption in its commencement; when it will appear, if there is a failure to cure in any case not fatally delayed, that the failure is not a necessary one, but is due to a want of knowledge and want of skill in the practitioner who treats it,—knowledge and skill which are within the reach of all physicians who will consent to lay aside their preconceived notions and their prejudices, and be guided by the light of facts and true science.

CONSUMPTION THE CITADEL OF QUACKERY.

Consumption is the citadel of quackery. Make this disease understood, and curable in the hands of all intelligent physicians—settle the principles concerning it, and the remedies required for its prevention and cure, and there is an end of quackery. Empiricism will have so little left for its foundation and support, that it will not long exist in the hideous proportions that it now presents. But let the same confusion prevail in regard to consumption that has hitherto prevailed—the same capriciousness and want of success in the administration of remedies—and the quack, the empiric, and the regular physician will continue to be classed in the same category—the latter more respectable, but the former equally successful.

CHAPTER XX.

PULMONARY HEMORRHAGE, SHORTNESS OF BREATH, VARIETIES OF COUGH, AND EXPECTORATION.

HEMORRHAGE.

This is one of the great symptoms of pulmonary consumption, caused by an organic pulmonary lesion, and usually calling for prompt medical assistance. In all the varied horrors of consumption, in all the symptoms throughout its development, there is no one that excites more alarm in the patient, more overwhelming dread of present danger, or greater foreboding of future evil, than bleeding from the lungs and throat. Even when slight, it excites the most intense alarm in the patient, and the most agonizing distress to his friends. There are various causes of pulmonary hemorrhage, as well as various periods when it is most apt to occur. So there are various states of the lungs inclining to pulmonary hemorrhage; and in many individuals we find, from peculiarities of temperament, a much greater disposition to bleeding than in others, although there are none without exceptions.

I have referred to pulmonary hemorrhage frequently before, but I here group the whole subject together, so that the physician and patient may have it all before them in one chapter, and, in case of emergency, find here a convenient reference for assistance and direction.

Of the temperaments, the sanguine is doubtless most liable to pulmonary hemorrhage. Persons with red hair, sandy or red whiskers, light complexion, and thin skin, are much more liable to hemorrhage than those of bilious temperaments, with brunette complexions, dark hair, thick skin, black beard and whiskers. The sanguine phlegmatic temperament is also very liable to hemorrhage, for in this temperament life is lowest and pulmonary circulation most feeble. It is indicated often by a plump habit, thick, rosy lips, &c.

The lungs may be placed in such condition as to lead or incline to hemorrhage, by the following causes:—and first,

MECHANICAL INJURIES,

Such as blows, falls, straining the chest by great mechanical efforts, as wrestling, running great distances, lifting heavy weights, long and loud speaking, orators holding on for some hours in their orations, clergymen preaching several sermons the same day with very much effort, will bring the lungs into a condition in which bleeding will take place. Sometimes the bleeding takes place immediately after the injury; in others, the catastrophe is put off for several hours or several days, when most unexpectedly, and even after the injurious occurrence is almost forgotten, the person may be seized with hemorrhage. It may occur while walking or talking, while exercising or when at rest; but it very often occurs upon retiring to bed, or in the middle of the night, or towards morning. The patient upon awakening feels something in his mouth; he spits it out, or, rising, seeks a light, and finds that it is blood. In most cases the fever and alarm it excites are truly distressing, and it must be a stout heart indeed that is not fearfully overcome by a first hemorrhage from the lungs.

HEMORRHAGE FROM PLETHORA AND CONGESTION.

A condition of the lungs favorable to bleeding, may arise without any external injury whatever. Persons of indolent habits, students sitting long at desks, who have but little exercise, who indulge in full, free living, drinking much porter, ale, and malt liquors, and sometimes those who drink distilled liquors, whose bowels are slow, digestion tardy—food lying long in the stomach—when the circulation becomes slow, dull, and heavy; persons given to excesses and debauchery, or who are exposed to much heat or great cold; residents of the city, and those who spend their time in large workshops, or in situations where the air is very close—will often be attacked with hemorrhage from the lungs without any previous admonition. This is strikingly the case where large numbers of persons sleep in one room in hot weather, where the air becomes exceedingly impure and highly rarefied.

I was called, in the winter of 1853–4, to visit a young lady in New Jersey. She possessed a sanguine temperament, and was truly beautiful. There was not the least disposition to consumption in her family. The July previous, at a large boarding-school in New Jersey, she was compelled to sleep in a room with thirty other young ladies, most of them grown up. This room was in the attic of the house, which was divided into four compartments by board partitions, the partitions not extending to the ceiling: this room was wholly without ventilation. In this "black-hole" thirty young ladies, of the best families, were forced to sleep every night in the very hottest weather, without an open window or any thing whatever that could permit ventilation. As a consequence, she was taken with bleeding from the lungs. When I saw her, she was in very advanced consumption, and died in a few weeks.

Another cause is found in

TAKING COLD,

And consequent suppression of the cutaneous perspiration and closing of the emunctories of the system generally, from being excessively chilled, &c. The patient, after a period of short breathing, slight hacking cough, and cold upon the lungs and head, may be attacked with hemorrhage. The

SOFTENING OF TUBERCLES,

Is another cause of hemorrhage; sometimes the tuberculous deposits may be near a large blood-vessel, and in the course of their softening may cut off this vessel so as to produce sudden, and sometimes fatal, hemorrhage. In another class of cases, the lungs, one or both, may become collapsed from effusion of pus or water in the pleura. This state of collapse may become permanent; and the patient, on returning to tolerable health, will be attacked with sudden and copious hemorrhage from the bursting of a blood-vessel, caused by the effort of the system to carry on the circulation and open the collapsed lung.

SUPPRESSED CATAMENIA, DRYING UP OF OLD ISSUES, ETC.

Bleeding from the lungs, as a vicarious discharge, occasionally occurs. I have witnessed repeated instances in ladies, where the catamenial function was suppressed, who, at the return of the period, would be attacked more or less with bleeding from the lungs, and this very frequently in very delicate subjects. The drying up of old issues, such as ulcers, sore legs, discharges from the ears, the sudden curing of long habitual piles, and especially bleeding-piles, will very frequently be followed by bleeding from the lungs.

These are a few of the groups of causes that the physician will meet in the course of his practice. He should be perfectly aware of them all; and in individuals or families with whose constitutions he is acquainted—whom he knows to be predisposed to consumption—he should avoid and prevent, if possible, any thing that can place the lungs in a condition to bring on bleeding.

BLEEDING FROM DEBILITY AND CONTRACTION OF THE CHEST.

There is another class of persons inclined to pulmonary consumption, which I have not mentioned; and these are persons usually of sedentary habits, who have delicate organizations, are very effeminate, and who, by the habit of stooping and throwing the shoulders forward upon the chest, have greatly contracted it. They are usually of slight, thin figure—chest relatively small, &c. If these persons are at all predisposed to consumption, they very readily bleed from the lungs when they are acted upon by any of the exciting causes I have before mentioned.

REMEDIES FOR HEMORRHAGE FROM THE LUNGS.

In some persons of very plethoric habits, with large chests and a vast quantity of blood in the system, hemorrhage from the lungs may be very soon arrested by free bleeding from the arm; and in such cases the physician is fully justified in recommending it; but in persons of more delicate constitutions, of slighter development, and especially where they have already lost much blood, bleeding from the arm is not justifiable, and should not be resorted to. In some

cases, one or two leeches, or more, may be applied to the chest or over the part apparently affected, and be of much benefit. Dry cupping is also found to be very useful, and can rarely ever do any harm to the patient. Every effort should be made to arouse and equalize the circulation, and procure activity throughout the whole capillary system; and if the feet are cold, which is often the case, they should be put in very warm water, and be kept there till the circulation is drawn fully to the extremities. Mustard-poultices may be put upon the chest or between the shoulders; and after taking the feet out of the water, mustard-drafts may be put on the feet with much benefit. The patient may take at the same time as much as he pleases of common table-salt. This is one of the most valuable remedies known to us for the prompt arrest of hemorrhage from the lungs. It will almost always stop it. Saltpetre (nitrate of potash) is also very valuable. Almost any of the astringents may be given with good effect. Lead should be sparingly used. The diet should be low in robust persons for a considerable time; but in the feeble and delicate the diet should be light, still it should be generous and highly nutritious. We should at the same time endeavor to remove all the causes that have induced or inclined to hemorrhage; the bowels should be kept perfectly free; a compress dipped in water, or salt and water, either hot or cold, may be applied to the chest, or so as to cover it either partially or wholly front and back, which should be changed two or three times a day, until all hemorrhage, and the effects of hemorrhage, have disappeared.

In cases resulting from the suppression of bleeding-piles, the application of leeches to the parts may oftentimes have a prompt effect in stopping the bleeding from the lungs. Old issues should be re-established as much as possible, and suppressed catamenia should be restored. Although bleeding from the lungs is so alarming, I have found, in a vast many cases, that persons who bleed from the lungs quite as often recover from pulmonary disease as those who, in the same disease, never bleed at all.

I need not add here that the patient should be kept quiet, that conversation should be avoided, and that in no way should the lungs be exercised much under some days after the bleeding. We should forbid the use of the inhaling-tube, or any mechanical inhalation whatever, until some time has elapsed, when these may be cautiously resumed. All persons inclined to pulmonary diseases, when they

commence expanding the chest by the use of the inhaling-tube, or by taking long breaths, should exercise great caution at first, so as not, by these attempts, to bring on hemorrhage.

I need not recapitulate what I have before said, but will merely add, search for the causes, mark their results, avoid inducing any of them by your own prescriptions, and apply prompt remedies to prevent bleeding in all those persons where the causes exist that tend to induce bleeding. With a clear perception of the causes, and a careful knowledge of the circumstances of your patient, you may usually be able to foresee a coming hemorrhage, and avert it by timely remedies.

SHORTNESS OF BREATH.

I will say a few words upon the subject of short breathing, which I have alluded to several times already. I do not, however, propose to do more than refer to a few of the more prominent cases; for, to discuss the subject in any thing like detail, it would be necessary to mention every disease I have described as connected with the chest, heart, lungs, &c.

Shortness of breath almost always results from a bad circulation of the blood: there is some condition of the system in which the blood is prevented from passing promptly and perfectly through the lungs, and it is detained there. It thus accumulates in the lungs, fills them up, and lessens their capacity to receive air. The blood thus held in the lungs is not aerated, and distress is felt, as for want of air. There is of course a struggle for more breath, and violent pantings, or convulsive efforts at deep breathing, take place. This is the case when a very bad cold has been taken. It is the case in inflammation of the lungs, and in pleurisy: the breath is short, because, by the inflammation, the lungs are engorged with blood, and the pain prevents the free expansion of the chest, when tubercles are deposited in the lungs; then the breathing becomes short. In cases of water on the chest, short breathing is observed; when the stomach is greatly loaded, it produces short breathing, if there is any weakness of the lungs. In thickening of the air-passages, when it becomes considerable, the lungs fill up, and short breathing is caused. Ossification of the heart, or water about that organ, will, on exercise, induce short, hurried, and catching breathing. In instances of water on the chest,

one of the very earliest symptoms is shortness of breathing. In true tubercular or congestive consumption, and many other forms, the first premonitory symptom is shortness of breath—the person finding that he has not his usual breath. When he exercises, he is soon weak and debilitated, and his breath is short; and many times he will incline to take long breaths, and strive ineffectually to expand the lungs; and frequently this effort is accompanied by continual gaping: all this shows that the blood does not circulate properly in the chest.

Shortness of breath often arises from an accumulation of fat in and about the chest, in persons who are very fleshy and stout. The fat will accumulate about the heart, and prevent its action, and also about the walls of the chest, in such a manner as to impede their action; the stomach will be greatly filled up, and the diaphragm, or floor of the chest, does not rise and fall freely, as it would in usual health. The excess of flesh thus often becomes an actual cause of disease.

By referring to the various and separate diseases of the chest which I have mentioned, the reader will find shortness of breath connected with nearly all of them.

OF THE DIFFERENT VARIETIES OF COUGH.

Those who have the opportunity of extensively observing consumptive diseases, are often struck with the numerous varieties of cough—their peculiar phenomena, the time of their appearance, their duration, &c. There is one variety of cough which might be denominated a "clearing-up cough," which, in a vast many persons, is a mere hemming. On awaking in the morning, almost the first thing to do is to clear the throat. Perhaps they expectorate little or nothing—sometimes, perhaps, a small quantity of stieky phlegm; and a few forcible expirations of air from the lungs clear the throat of the mucus. Perhaps, in the process, the patient hacks once or twice; and may be, through the day, the throat becomes slightly filled up, and a little hoarseness, with a little hacking and hemming, takes place. This is often the case in old people, and very often the case with children who have a slight catarrh about the throat and lungs. Often the mucus seems to drop down from the back part of the nostrils into the throat during sleep, and in the morning must be cleared away.

In persons not predisposed to consumption, this state of things is not very alarming, as it is found with many who have had it for a long lifetime. This is the catarrhal variety of bronchial cough.

CONSUMPTIVE COUGH.

The consumptive cough, if carefully and strictly noticed, presents many features which indicate to the experienced observer, almost at once, the variety of affections to which the patient is subject. True tuberculous cough, in its early stages, is usually very obscure—a slight hacking, which is brought on and increased by exercise, such as running, or going up stairs; the patient, after such exercise, finds himself short-breathed and panting, with a short hacking cough, which he cannot suppress. As the disease advances, this cough gradually increases until it becomes very annoying; rarely ever occurring, however, in the early stages, whilst the patient is at rest and perfectly quiet, or when asleep. Where this occurs in persons predisposed to consumption, it is usually when they find themselves in a low state of health, when they are feeble and easily fatigued: they retire to bed at night fatigued, and feel as fatigued the next morning as when they retired at night—sleep does not appear to rest or refresh them. This is strikingly the case with delicate females and young persons of both sexes—those who work as clerks, teachers, sempstresses, sewing-women, &c. When these symptoms occur, accompanied at times by slight pain about the chest, with intervals of entire freedom from pain, and slight expectoration as the cough increases, perhaps sometimes a little blood being mixed with the phlegm raised, and at others profuse discharges of blood taking place, they mark unmistakably the commencement of true consumption, particularly in those predisposed to it. The patient at this stage should not be neglected, nor the true condition of his case overlooked; but he should be treated promptly with a view to his immediate relief and ultimate cure. Sedentary employment should be exchanged for active exercise, city air for a country residence, and mechanical remedies should be employed—shoulder-braces to expand the chest, and a supporter to support and strengthen the back, shoulders, bowels, &c., should be employed; every cause of debility and disease should be removed, repelled eruption should be brought back to the surface, the blood purified and the strength renovated; and in this way, in

the early stages of pulmonary consumption, a cure will very often promptly result, and the patient, by perseverance, may finally overcome the disposition to it, and live in health during a long life.

After consumption is fully established, and ulceration of the lungs has taken place, we usually find the consumptive to rest tolerably well during the night; but as soon as he wakes, or begins to move, in the morning, the cough commences, and in many instances continues more or less for from ten minutes to half an hour, or an hour, attended by expectoration of thick, heavy matter, sometimes of a saltish, sometimes a sweetish, and sometimes a nauseous character. Some of the matter usually sinks in water; it is in some cases the color of cream, in others it has a greenish color. Having cleared the lungs of this purulent matter, and the cavities of the lungs being thoroughly emptied of it, the patient will perhaps have but little more cough for the whole day—in some instances none at all—until he retires to bed at night, when he will usually experience another fit of coughing. What he does cough up through the day is often a light, frothy, watery substance, with scarcely any hard or thick matter mingled with it. In some instances the cough will be difficult and violent. This is especially the case where the throat is affected, or where some parts of the windpipe are in a state of inflammation or irritation, and then the fits of coughing may continue for hours. The patient may feel as if something was scratching at his throat—as if a pin, or something of the kind, stuck in the throat; sometimes it will appear to be on one side of the throat, sometimes on the other; and he will continue thus for a long time, unable to suppress the cough or remove the offending irritant by which it is produced. During this coughing, the patient will merely raise a watery matter—a frothy substance which floats upon the surface of the dish. If any heavy or thick matter appears, it will be in only small specks or particles, appearing occasionally among the frothy phlegm.

CONGESTIVE COUGH.

There is a class of persons, usually possessing large chests, and short, thick, fleshy necks, and whose throats appear to be exceedingly small: upon exercise—talking or lifting—such persons are almost invariably induced to cough. They readily strangle from any thing passing "the wrong way" in the throat; and then they will

experience a violent fit of coughing, and the throat will appear suddenly to swell and fill up. Such persons, on taking up a lucifer match and lighting it, if they inhale the sulphur, are thrown into a violent fit of coughing. If the atmosphere of the room where they are is filled, to any extent, with dust, they will be almost suffocated. This is often the case with asthmatics, who are thrown into a fit of short breathing and coughing by the presence of various kinds of dust, powder, &c. Hearty laughter will usually induce cough; so will full exercise of the voice, as loud talking, singing, &c., when the face will become flushed, and the veins of the neck swollen, &c. There are thousands in whom severe coughing will be brought on by any of these circumstances. At all times when these exciting causes are not present, they may be perfectly free from cough. This description of cough may result somewhat from a slight irritability in the throat or lungs, but most usually it is connected with a plethoric condition and a consequent congested state of the lungs. The circulation in the lungs is not as active as it should be. The difficulty may be easily removed.

STRIDULOUS COUGH.

There is another variety of cough which often occurs in persons who may be lean, and usually are, but who have an inflammation or humor about the windpipe and throat. The sound is a smooth one, like that of a trumpet—a whistling cough, or a kind of whooping, which is noticed in a far greater degree in whooping-cough.

HUMID COUGH.

There is one variety of cough which, to the uninitiated, would seem to indicate that there was a vast quantity of matter in the throat and lungs, as we seem to hear it gurgle when the patient coughs; yet he never raises any thing, and this cough may continue on him for years. It is produced in parts of the mucous membrane of the larynx or throat, or some part of the lungs; and this valve-like swelling will flap backwards and forwards in the air-passages, and obstruct the air, so as to give a sound that indicates the presence of matter or mucus, when nothing of the kind is there. This kind of cough is mostly observed in young persons and children. I have

known it to continue eight or ten years, producing a most painful impression upon the hearers and friends of the patient. This variety of cough is very soon cured, and in a great many persons never leads to consumption; in others, consumption may eventually take place, but may not be produced by this cough. It is, however, most disagreeable and annoying to the sufferer and his friends.

ASTHMATIC COUGH.

The asthmatic, in a great many cases, will cough very little, or none at all, except during the paroxysms of asthma and whilst the secretions following these paroxysms continue; and after the attack has lasted from three to ten days, the cough will go off entirely, and the patient will have none whatever until the recurrence of another attack. The cough is dry at first, but as the disease progresses it becomes humid, and at length is attended by copious expectoration. In some instances where the disease is severe, and has continued a long time, the cough may become continuous, or occur daily more or less.

COUGH IN BRONCHITIS AND PULMONARY CATARRH.

Where the mucous membrane of the lungs is extensively and chronically affected, the cough is not confined to any time or period, day or night. Persons thus affected will cough whenever the lungs are filled up and cough is required to relieve them. They usually cough on awaking in the morning, and after clearing the lungs: they may cough more or less all day, and wake up many times in the night and cough, to clear the throat and lungs. They are usually observed to cough, or hem, or scrape the throat on first attempting to speak.

WORM AND STOMACH COUGH.

A short, hacking cough, occasioned by the irritation of worms, or irritating matter in the stomach, is very frequently observed; and this cough is sometimes exceedingly violent—fearfully so, as if the chest would burst to pieces.

In this kind of cough there is never any expectoration. It may be distinguished from congestive cough by the absence of all flushing

of the face, or swelling of the veins of the neck, or wheezing, or shortness of breath on exercise. From asthmatic cough it differs in this, that the subject of it does not cough much more at one time than another, and has no asthmatic paroxysms. By noticing these facts, and considering the other symptoms of worms or dyspepsia, it may be distinguished from any other kinds of cough.

GENERAL REMARKS.

I have thus cursorily glanced at these varieties of cough; but I never lay any great stress upon the cough as giving positive indications of the character of the disease from which it originates. The only certain mode of ascertaining the condition of the chest is by examination, when, to the practised ear, unmistakable indications of healthy or diseased lungs and air-passages will at once be presented, and the cough traced directly home to its source. I would here remark, that cough is not a disease of itself, but a mere symptom or result of disease, and always proceeds from some cause back of itself; and yet, when severe, it becomes a source of great injury to the patient, especially when it is one caused by irritation, and is not excited to expel matter from the windpipe, lungs, or any of the air-passages. It then becomes a source of injury and debility to the lungs, and, in congested lungs, may often bring on bleeding. It is most desirable, on this account, that a cough should be stilled and quieted, especially when it proceeds from irritation. It is always a pleasant symptom when we find the cough retiring and the strength of the patient increasing.

In the advanced stages of consumption, a very short time before death, after the patient has become greatly reduced and the lungs almost destroyed, his cough will often abate very much indeed—even stop altogether; and the mistake of inexperienced physicians and hoping friends will pronounce the patient much better; but the shortness of breath, prostration of strength, and inability to move or converse without immediate exhaustion, indicate unmistakably to the experienced observer that the patient is no better; but that, on the contrary, he is much worse, and that his sufferings will soon close in death.

EXPECTORATION IN TRUE PULMONARY CONSUMPTION.

In true pulmonary consumption, where the lungs become ulcerated, we usually notice three principal kinds of matter expectorated: one is the bluish, sticky, glairy, catarrhal mucus, which, on being taken up on a stick or a spoon, will extend out in long strings, sometimes to the extent of a foot or more, holding together by its gluey, sticky nature. This matter comes from that portion of the mucous membrane of the lungs or air-passages which is in a state of inflammation, and occupied by humor. The other is a kind of matter mixed more or less with that above described, which has in many cases the appearance of cream, of a whitish or greenish color, and of a sweetish, saltish, or nauseous taste, usually sinking to the bottom of the dish into which it is expectorated. It is found to consist of the purulent result of ulceration, mingled with tuberculous matter in a greater or less degree dissolved. It is a great mistake, however, to suppose that it is necessary to have a cavity in the lungs in order to have pus present there; for the mucous membrane, in some states of inflammation, though it is neither broken or ulcerated, may pour out pus. This is the case in thousands of persons who have catarrh upon the lungs. There will at times be a secretion of true pus upon the surface of the mucous membrane in these cases. Of course, where there are ulcerous cavities, there will be secreted more of this cream-like, heavy matter, than when it proceeds from the inflamed mucous surface. I would remark, that frequently the discharge of this purulent matter is greatest in the morning, when on changing position in rising from bed there occurs a fit of coughing. The third variety of matter which consumptives often expectorate, usually through the day, is a frothy, watery substance: there is hardly any thing of it but water. It is secreted in the mucous membrane of the lungs, which is in a state of irritation, and resembles greatly the water which drops from the nose, when exposed to a cold, in persons inclined to catarrh. In some consumptives, it is very acrid and scalding to the throat, inducing great irritation and a burning sensation in the lungs and throat. In other cases it is not acrid, being scarcely more than simple water, as mild as the tears.

EXPECTORATION THAT OFTEN PRECEDES TRUE PULMONARY CONSUMPTION.

Persons troubled with catarrh about the throat or in the lungs, attended, as it often is in these cases, by annoying hemming and scraping of the throat, will frequently imagine they feel a movement of something in the throat, as though a small mass of mucus were sticking there and moving up and down. This is most frequently felt in the morning immediately after rising from bed, when the patient has usually a fit of coughing, accompanied by forcible but unavailing efforts to raise the phlegm. But it may occur at any time during the day, and in many instances many times a day. It seems to the person thus afflicted, that there is a considerable mass of matter in the throat, but that it is stuck fast—so firmly adherent that no efforts can dislodge it. After severe coughing and much effort, a small quantity of phlegm is raised to the mouth, and then there is another struggle to get rid of it, as it sticks pertinaciously to the tongue, the roof of the mouth, and the lips. When finally ejected, it is found to be a small mass—not usually in any case more than a small teaspoonful—in some cases of semi-transparent, sticky, tenacious matter, of a bluish-white color, and in others a thick, limpid fluid, like the white of an egg, as clear and transparent as isinglass.

When persons are not predisposed to consumption, this expectoration is of but little consequence, and little danger is indicated by its presence; but if predisposed to consumption, this slight secretion may go on increasing until large quantities are expectorated, cough fully established, and consumption confirmed. I should never advise any one to allow its continuance, but to take measures to correct and remove its cause; for whatever the cause may be, the lungs and air-passages cannot be in a perfectly healthy state. There are no such vicious secretions whatever unless there is disease of some kind. The matter which is thrown out from healthy lungs, passes out in the form of vapor, along with the air we breathe, and does not obstruct any part of the air-passages.

PECULIAR SUBSTANCES SOMETIMES EXPECTORATED.

We frequently observe in the sputa expectorated by consumptives, pieces of hard matter; sometimes as hard as bone apparently, at

others about the consistency of hard cheese. Sometimes these particles are very minute, and being mingled with the opake, creamy sputa, can hardly be distinguished; at others they are seen as large as grains of wheat, and even larger sometimes. These little particles of hard matter are raised and detected in the mouth almost or entirely free from phlegm or other sputa, when they are perhaps taken in the fingers and found to be small granules, round and smooth, appearing like bits of polished ivory, if very hard—and if softer, like pieces of white cheese that have been rolled smooth in the fingers. When this phenomenon occurs, it should give the alarm. These granulations are *tubercles*, more or less in a state of softening, which have become detached from their place of deposit in the lungs, and ejected. They indicate that the patient has the *consumptive habit*, or *diathesis*, as it is called—if not already in consumption. No time should be lost in taking measures to arrest the disease.

In some instances we observe, in the matter expectorated from the lungs, particles of a peculiar gritty substance, having all the appearance of, and which are in fact, *chalky* concretions. As I have before remarked, these chalk deposits in the lungs are most frequently found in those cases where there is, or has been, a rheumatic tendency in the system, and *rheumatic consumption* is developed. It is thought by some, and it may be true, that tubercles sometimes become converted into chalk, and are then detached, finding their way into the bronchi, and are thus expelled. If this is so, it is undoubtedly one of the modes by which consumption may be cured—the tuberculous deposits passing into this chalky state, instead of softening and breaking down in a condition of ulceration.

It sometimes, although very rarely, occurs, that living worms are developed in the lungs. I do not here refer to the more common occurrence of a peculiar formation in the pulmonary organs of what are known as *hydatids*, or vesicular worms. These are of a very low grade of animal life, hardly worthy the name, being as it were only a species of slightly animated *cysts*, or jelly-like bags. But the worms I allude to have a perfect organization, and a high degree of life. I have myself known only one case in which these worms made their appearance. They were expectorated with the sputa for a considerable time before the close of life, and were found in considerable numbers in the lungs after death. The case did not otherwise present any remarkable features, being true hereditary tubercular con-

sumption, attended from its beginning to its close by the ordinary symptoms and circumstances.

DOES MATTER EXPECTORATED FROM THE LUNGS, WHICH SINKS IN WATER, ALWAYS INDICATE THAT THE LUNGS ARE ULCERATED?

It is a common impression that any matter expectorated from the lungs by coughing, which sinks in water, must be of the nature of pus; and then assuming that purulent discharges occur only where there is ulceration, and that none but the purulent discharges from the lungs are heavier than water, the conclusion is reached that such sputa always indicate ulceration in the lungs. Now, both the premises and the conclusion are erroneous. It is not true that none but *purulent* discharges from the lungs have a greater density than water. We often find the purely mucous secretions denser and heavier than water. Even the mucus discharged from the nose will often quickly sink in water. This is frequently true also of the secretions that take place in pulmonary catarrh, particularly where the disease has been long established, and where the secretions lie for some time in the lungs, as they often do before they are expectorated. The simple fact, therefore, that matter thrown off from the lungs is heavier than water, unless there are present other symptoms pointing to tuberculation and ulceration, furnishes no ground for serious alarm. Still it is true that pus does sink in water, and that the product of ulceration in the lungs has generally this character.

I will not, however, dwell any longer upon the subject of the matter expectorated, or the varieties of cough; neither of them afford conclusive proof of the presence of true consumption. When joined to other symptoms—such as fever, pain, prostration, short breath, night-sweats, raising blood, &c.—they may be safely set down as indicative that the patient is consumptive; but whatever may be their character when occurring in those who are in their usual strength, who do not suffer from short breathing, who experience no fever, no night-sweats, &c., and who are not predisposed in any manner to consumption, we may almost safely hope that the terrible disease is not upon the lungs. At any rate, under these circumstances, the disease from which they originate is usually very promptly and readily curable.

CHAPTER XXI.

CONSUMPTION IN CHILDREN.

True tubercular consumption and bronchial tubercular consumption are occasionally seen in children, and frequently those of the most tender age. They may be produced by any of the causes I have before mentioned as inclining or inducing pulmonary consumption. I once knew a child at the age of seven months, attacked by congestive consumption, commencing with bleeding from the lungs, produced by the sudden cure of salt-rheum upon the face, without at the same time opening the system and purifying the blood of its poisons. Hence it settled on the lungs, and true consumption supervened, passing through all its stages, and the child died in its mother's arms, a victim to improper medical treatment.

Measles, whooping-cough, and all this class of diseases, when imperfectly treated, often leave their vestiges upon the lungs, and result in true tubercular bronchial consumption. I have witnessed many of these cases; but in some instances it will commence without apparently any special cause. The child may be in delicate health from any cause, and, by improper treatment, be thrown at once into pulmonary consumption. What I have said about improper medical treatment in adults, as often producing consumption, applies with tenfold force to the condition of children. The exceeding delicacy of their tissues, the laxity of their fibres, the want of density in their muscles as evinced by the softness of the fleshy parts, and the very rapid emaciation to which they may be subjected, indicate to us most clearly that harsh medicines, severe treatment, and especially mineral medicines, should never be exhibited. Their nervous impressibility and sensibility are also very great, and hence they are capable of the most acute anguish and suffering, from causes that would but little effect the adult. A blister upon the person of a child inflicts ten times the relative suffering that it would upon the adult. I must confess that in calling to mind the tortures to which I have seen children sub-

jected by the use of harsh and cruel remedies, the sad remembrances fill me with sorrowful indignation. Could I influence physicians, I would implore them never to inflict upon a child any thing but the gentlest medicines. I cannot better illustrate this subject than by introducing a few cases within my recollection.

Case First.

During December, 1846, in this city, I was called upon by a very respectable medical man, who requested me to visit his only son, a fine little boy six years of age, who had been sick about three weeks. He had been attended by two respectable physicians, who had pronounced his disease remittent fever. It had commenced very obscurely. He had drooped, lost his appetite, the eyes had become dull and almost expressionless, his flesh and strength had rapidly declined, and he had a slight hacking cough, with occasionally a chilly sensation followed by slight fever. The physician, pronouncing it remittent fever, had advised remedies consistent with such an hypothesis, as quinine, calomel, &c.; and these were persisted in for a long time, assisted by various medicines, fever powders, and others of that class. This treatment did not check the disease. The child's lungs might have been somewhat tuberculated at the commencement of the treatment; if so, these remedies rapidly augmented the disease, and he grew worse and worse. When I was called to visit him, he was in the last stages of true tubercular consumption. I need not attempt to describe the sufferings of his parents, or dwell upon his early death. A different treatment, I have no doubt, would have saved his life. Mercury, in any form, is fatal to delicate children.

Case Second.

In the winter of 1850–51, I was called to Brooklyn to see a little girl of seven years of age—an only daughter. Her father, the master of a packet-ship, was at the time absent in Europe. She had been taken ill some weeks before with a slight cold—inclined to be feverish, with loss of appetite, &c., and a little obscure cough. The family physician was called in. He was a respectable, middle-aged, old-school practitioner, of good standing among the first families of Brooklyn. After examining her case carefully, he pro-

nounced it to be worms; and for their expulsion recommended the exhibition of a large dose of spirits of turpentine, beat up and disguised with the yolk of an egg. This horrible dose the mother gave her darling child. She had previously asked the physician if it would do any harm. "Oh no," said he; "anybody may take spirits of turpentine if it is only beat up with the yolk of eggs, to prevent its irritating effects." The consequences were what might easily have been anticipated. The amount of turpentine given to the child, if applied to the throat and breast, would have blistered them all over; and although the internal surfaces were sheltered, in some degree, by mucous secretions, they failed to save them from the burning turpentine. The whole internal surfaces were literally burnt up—scorched as if a hot iron had been drawn over them. Almost an utter suppression of urine also followed: the child scarcely passed a drop of water for whole weeks. The tongue, all but crisped, was scarcely larger than the little finger, and red as a piece of beef. The throat was so denuded of its mucous membrane and so contracted, that the voice became a mere squeaking treble, and the whole internal surface of the lungs was in the same condition. She had a dry hacking cough, but no expectoration. The air-passages were greatly shrunken, and the mucous membrane dried up. Throughout every part of the lungs, whistling and squeaking were heard as the air passed over the burnt surfaces. The bowels were slow, and the whole surface of the body, with the limbs, hands, face, and feet, were dry and shrivelled—feeling like sand-paper to the touch. Such was the situation of this poor little sufferer when I was called to see her. Could the physician have abandoned her after his first dose, Nature might possibly have relieved her; but harsh medicines were still given for her cough—squills and severe diuretics. These only served to perpetuate the cruel mischief that the turpentine had so dreadfully commenced. I apprehended that the cure of the child was impossible. Still I was anxious to preserve her life until her father's return. With the most soothing medicines and gentle demulcents, the blandest and gentlest diet, she slowly rallied, and the kidneys resumed in some degree their wonted office. She lived to see her father, but died in the July following of diseased lungs.

Case Third.

To illustrate this subject still farther, I will give another case, as stated to me in a letter written by the mother of the child referred to—a lady of intelligence, and belonging to one of the most distinguished families in our country. I could not add any thing to the force of this sad narrative:

"A——, near M——, Ky., June 25th, 1855.

"Dr. S. S. Fitch:

"Dear Sir,—Upon reading your Six Lectures on the uses of the lungs, I have determined to write to you respecting the condition of my little son. We reside in N—— in the winter, and return to K——y in the summer. My little son was taken with a slow fever the third day of last January in N——. Our family physician was called in, and administered medicine. He did not regard the dear little fellow as very sick; but his fever and loss of appetite continuing from day to day for two weeks, alarmed me, and Dr. S—— was called in to consult with Dr. B——. He approved of his course of treatment (principally calomel and quinine), just calling it an obstinate lingering fever. On the 24th of January, he was taken with hemorrhage of the bowels. Dr. R—— was then called in consultation with Dr. B—— and Dr. S——, and his life was despaired of for four days and nights, during which time the hemorrhage lasted. Then they pronounced it the fever typhoid. After checking the hemorrhage, they did not expect a return of the fever; but the fifth day it returned—the pulse 120 to the minute; still they examined his lungs and said they could discover no cause for the fever. They continued to endeavor to break the fever until the last of February; then they ceased trying. Very little of his strength had returned, and a slight clearing of his throat had commenced, which gradually increased to a hacking cough. They told us we must take a sea-voyage: they could do nothing more for him. We sent for Dr. W——, the auscultator, to examine his lungs; and he told us if we wished the body of our child, never to take a sea-voyage—that his lungs were so far gone that he would not live but a few weeks. (He had not expectorated one particle at this time.) Neither Mr. M—— nor myself knew any thing of this disease, so we employed a homœopathic physician one month. Still the child gradually grew

worse, his fever as high, and his cough very hard and dry. We wished to change the air we were in, and it was too early to come to K——, so we went seventy miles in the Pine Woods, on the Jackson railroad. We went out in March. The child was very feeble, and only weighed thirty-three pounds, and he is in his eighth year; he was not able to walk. Under the treatment of Dr. T——, the physician there, he grew rather better. He commenced expectorating the 4th day we went out; and Dr. T—— could not believe his lungs so seriously affected, but thought the disease was confined to the bronchial tubes. He relieved his throat, and he gained some three pounds in flesh, but his expectoration had changed from the white phlegm to yellow matter; his cough was no better, his nights became restless, and night-sweats and chills commenced. We remained there six weeks, then I started to K——, not thinking my child would live to reach L——; but during the trip up he suffered exceedingly. We were then applying a liniment and alcohol to his breast, and giving him cod-liver oil and wine. When we reached L——, Dr. R—— and Dr. P—— examined him, and told me there were cavities on his left lung, and the whole of it was thoroughly diseased, but that his right lung was sound, and that they could do nothing for him. He could not sleep at night, his respiration very hurried, his pulse 140 to the minute, some three or four chilly sensations a day, an entire loss of appetite, most profuse night-sweats even when he fell asleep in the day, cold feet and knees, and a most dreadful cough, expectorating a large quantity of matter, and picking his nose constantly: that was the condition when we reached home, and feet very much swollen. So soon as I reached here, I asked our physician, Dr. R——, to allow me to put a bandage on our little son, wrung out of ice-water, but he said he was too low to experiment with, and they all said I might look for his death any day. So I determined I would put it on without his permission. I did so on the 15th of May, and he appeared to be better from the very day, and, until the last week, I had great hopes of his recovery. He has not had a night-sweat for some weeks. He now coughs very little, and expectorates none, and has not had a chill for some two weeks. He gained a little flesh and strength until the last week. He now complains of severe pain in the right side of his head. (He does not pick his nose as much as he did.) The glands of his throat around his ear on the outside are swollen, and he is much weaker than he

was two weeks since. His fever is still the same, and very hot skin at times; but he now sleeps quietly all night, lying either on his right or left side, or back; his feet do not swell so much as they did. There is no hereditary consumption in our families. Our dear little son has never been robust, but never sickly—just had a delicate appearance, and has always been remarkable for his exceeding beauty, and regarded by every one as very precious. Were he now able for me to undertake the trip, I would not hesitate one moment about starting to place him under your care; but he suffers so much with his head, and appears to have lost so much strength in the last week, that I fear to start. Since I have your lectures, I have procured one of your inhaling-tubes, but I cannot teach him to use it; still I try to make him draw long breaths as often as I can through the day, for his respiration is very hurried. I have just kept his chest and back covered with a wet linen cloth, wet three times a day with ice-water, for about six weeks. I have a cotton-cloth, lined with silk oil-cloth, to place over the wet linen one; and I have still given the cod-liver oil and iron, and as much old brandy or whiskey as we could induce him to take:—that has been my treatment since reaching home. Previous to his being taken sick, he was generally bathed daily in cold water. We have but two children, Dr. Fitch (having lost one this winter, which I will ever feel was by the mismanagement of our physicians), so, if you are a father, you can readily understand our anxiety as parents respecting the recovery of our precious child. If you can venture to recommend at this distance a course of treatment, just have written directions sent me, and the medicine forwarded by mail or Adams' Express, and your bill with them, and the amount will be immediately inclosed to you. The fever now is the principal thing to combat with, and the pain in the head (which I fear is an inward rising); and so soon as he is able to bear the journey, if you think there is any ground for hope, we will carry him on to New York. If you will send any package to the office of L—— & W——, No. —— S. W. street, they will forward it immediately, for they are Kentuckians and old friends. Please answer me immediately, for I feel there is no time to be lost. He rides out twice every day that he is able to bear the fatigue. Mr. W——, who is in New York, can give you any information you desire with regard to the health of Mr. M——'s family and my own. Let me beg of you to give this letter your earliest attention. Most respectfully, J. L. M.

Case Fourth.

"Middletown, N. J., September 20, 1855.

"Dr. S. S. Fitch:

"Dear Sir,—I have long wished to have you give to the world an account of the sickness of my child, and her almost miraculous cure by the use of your remedies. In August, 1850, my little girl, Rachel Cooper, aged five years, was taken with whooping-cough. This continued on her until winter, and all the following winter she had a bad cough. In March she took a violent cold, followed by inflammation of her lungs, with fever, a dreadful cough, &c., raising a great deal of thick, heavy matter. She became emaciated to the last degree; nothing left of her scarcely but her skin and bones. She had dreadful cold sweats; so that wherever I laid her, she would leave the print of her form in water, so profuse were the sweats. Her left lung or ribs did not move at all; little appetite; a mere, almost translucent skeleton. The doctors who attended, said a recovery was hopeless—utterly hopeless. For eight weeks she slowly sunk to the very verge of the grave. I then applied to you, received your remedies, and faithfully used them, and with the fullest success. By their means, and no other, was she restored to perfect health; and she is now perfectly well, and well-grown for her age. Your remedies served not only to cure her and raise her up to health and strength, but to remove all traces of disease from her system.

"Mrs. Cooper."

Case Fifth.

In February, 1850, a lady of Brooklyn called to consult me about her little daughter, nine years of age. She, in common with thousands of children, was the subject of a winter cough, apparently humid, but still with no expectoration of any consequence. Daily, in all weather, she attended school. Her cough increased somewhat, and the family physician was called in. He advised that the child should be kept from school, be confined entirely within doors, and not even allowed to go in the yard to play, or take any fresh air whatever. Previously she had gone out as much as she pleased, but was warmly clothed. Besides being confined within doors, she had cough medicines prepared for her, and was dieted very rigidly.

These cough medicines were usually of a reducing character—such as squills, antimony, opium, &c. Under this treatment her strength rapidly failed, and her cough greatly increased.

Another physician was called in to counsel with the first; and after a few weeks they both pronounced the case one of true tubercular consumption, adding that she would not recover. The second physician called a few days afterward at the house of the little patient's aunt, and, being questioned, said that the child could not live, that medicine was entirely unavailing in her case, that it was no use at all to doctor her. The aunt called immediately to see the mother, and told her all that the doctor had said, concluding with the question, "What are you going to do about it?" "What can I do about it?" said the mother. "There is one thing that I will do: I will call on Dr. S. S. Fitch, of Broadway, N. Y."

The father at this time was perfectly inconsolable. He looked upon his little daughter as already dead. The mother did not despair, but retained her fortitude and resolution to do what could be done to save her child. She called on me and stated the case; and I prepared such remedies as I thought the emergency required. I also directed that the child should be kept from school, and bathed every day in tepid water; that generous nourishing diet, suitable for children, should be adopted; that each morning a small bowl of sago gruel should be given, well sweetened with loaf-sugar; a little dry toast was also recommended; but I counselled that coffee should be avoided; and for her dinners and suppers I advised her usual food. She was also enjoined to resume her sporting and playing in the yard in all agreeable weather, and to go out with her mother riding and shopping whenever she pleased.

In a very short time the mother brought the child to see me. Her recovery was very rapid; and in two months a healthier and more rosy-cheeked little girl could hardly be found in Brooklyn.

Case Sixth.

In the winter of 1851, a gentleman and lady called upon me. He was a young German importer, and a very highly intelligent man. They were both young; and on his arms, supported by a pillow, rested his only child, sixteen months old, and as beautiful a boy as any I

ever saw. Yet he was apparently in the last hours of life—his face had the blue, pallid hue of the dead. Languidly he opened his eyes, but had hardly strength to speak or groan. In utter despair they had brought him to me, having been told that I never visited the sick out of my house, which, however, was not correct.

This child had suffered from a bad cold and inflammation of its lungs; and the treatment had been of the common order—nauseating, reducing, and prostrating. I could give little or no hope of relief; but at once prepared medicine for the occasion, and told the father that he might return it next day, as in all probability his little son would then not be living. I heard nothing more of them for fourteen days, when the father returned, saying that his little boy was almost entirely well; that the medicine I gave him caused him soon to revive; that his cough was greatly relieved, his strength and appetite restored, and that they rejoiced in his recovered health. He is still alive—a fine and beautiful child—and in excellent health.

Some time afterwards, upon the father going to Europe, he committed his wife and child to my care, as their medical adviser. The memory of this beautiful boy and his recovery, fill me with a pleasure that I cannot express.

It is a great mistake to suppose that consumptive children cannot be made the subjects of successful medical treatment. Medicines can be prepared as appropriate to all the phases of the disease of children, as to those of adults. No medicine should ever be given to adults that cannot be prepared so as to be perfectly suitable for children also; and no medicine should be given to a child that is not perfectly adapted to its condition and its strength. Severe, harsh doses of medicine should never be exhibited to anybody, much less to children.

I have had the satisfaction of treating great numbers of children for coughs, colds, dyspepsia, and almost all the ills that infant "flesh is heir to;" and yet in my own practice I have never lost but one child, where I was the first physician called. Great numbers of children have been brought to my house, or I have been called to see them, when they were apparently dying of consumption—their chests loaded with phlegm, their strength prostrated, their appetite gone, and all the forces of life receding; and yet, in nearly every instance,

I have resuscitated them, and brought them back to the enjoyment of health, by God's blessing.

The diseases and sicknesses of children are very seldom at first organic, and they very readily yield to suitable remedies. But if harsh, unsuitable medicines are given, and improper measures adopted by the parents or physicians, woe! to the unfortunate child. In this city and elsewhere, I consider that the deaths of at least ninety out of every hundred children are entirely avoidable, and might be obviated by proper remedies at the proper time; that often the cause of death has been improper management or the exhibition of improper food and medicine.

COUGHS OF CHILDREN.

Great numbers of children, in the changeable and cold weather of autumn, winter, and spring, are liable to take cold and discharge large quantities of mucus from the nostrils. Where these discharges are free, it has passed into a proverb that the children are likely to be healthy. In many other cases, such colds affect the throat, lungs, and windpipe. The cough sounds very humid, and one would expect that the child would raise great quantities of mucus, when in fact scarcely any at all is raised. But the cough continues sometimes all winter. This most unquestionably is a humor upon the lungs—a skin disease affecting the nostrils, lungs, and air-passages. Sometimes upon the occasion of colds, the cough becomes very aggravating. In most cases it leaves on the appearance of spring, and returns more or less during the following winter; yet with proper care it will disappear altogether after a few seasons. I have, however, known such a cough to continue in one person until the age of sixteen; but it generally ceases at a much earlier period—usually from the age of three to eight. Now, in any children afflicted by this description of cough, nothing is easier than to produce pulmonary consumption: it is only necessary to place them under those exciting causes which I have dwelt so much upon as leading to pulmonary disease; especially to call in a physician who gives harsh drugs, and particularly mercurials, or any of the medicines which dry up the secretion of the lungs; of these, quinine is the chief,—iron also, and all iodine preparations are included, and so is any thing that reduces the child's strength unduly. If children are sent to

school, severe studies forced upon them, and subjected long to confinement in heated rooms, have blisters applied to the chest, and the accustomed food withheld, in nearly every case true consumption will rapidly supervene.

PROPER TREATMENT OF CHILDREN ON THE OCCURRENCE OF COLDS, OR DURING A HABITUAL WINTER COUGH.

It is said that medicine has made some progress within the last hundred years. And this indeed is true; but I very much doubt whether there has been much improvement in the treatment of children's coughs, whilst an enormous amount of injury has been accomplished.

The domestic practice now in vogue for children, was at one period the universal practice of physicians; and the idea of giving harsh medicines—mercurials, Peruvian bark, quinine, or shutting them up to prevent their out-door exercise, or withholding their accustomed food, would have been looked upon as unspeakably ridiculous and improper. My advise in such cases is to give the children mild demulcents, such as flaxseed-tea, hoarhound candy, and any of the simple syrups prepared from colt's-foot, hoarhound, elecampane, comfrey, &c.; boiling the herbs to obtain the strength, then sweetening it well with sugar, and allowing the child to drink as much as inclined. Molasses and castor-oil are an admirable remedy. One tablespoonful of castor-oil to a half-pint of molasses, well mixed together, may be taken at pleasure—a teaspoonful ten times a day if desired, but not to move the bowels too much. The chest may be rubbed over with a little goose-grease,—the nose, as well as the forehead over the eyes, may be subjected at bedtime to a similar treatment when the nostrils are much obstructed. The child may be sponged over every day in tepid salt and water, of a temperature not so cold by any means as to chill it; and the room should be warm, so that the young patient may not be in any danger of receiving cold. If general bathing is not adopted—and by this I mean ablutions—the throat and top of the chest should be bathed freely in tepid, coolish, or cold water every day. The child may go out in pleasant weather; but if it is intensely cold, stormy, or windy, the little sufferer is better within doors. The sleeping-room and apartment should always be perfectly comfortable, so that if the bed-

clothes are thrown off accidentally, chill may not follow and cold ensue. By means of this care and treatment, the most delicate child, with the most tender lungs, may be gradually conducted to health and hardihood. Whilst young, children's powers of endurance are naturally small, and nothing should be imposed upon them by which they can be injured. As their years advance, they should have more exposure. During the hot weather, a residence in the country, especially in cool, mountainous regions, will be found highly salutary. Those whose lungs are not unduly delicate, will derive benefit from a few weeks at the seashore. Carriage-riding is most excellent for children. Delicate children should never be sent early to school. Nothing can be more injurious than this. I have sometimes looked upon the conduct of parents in this matter as truly astonishing.

It is but a few weeks ago since a lady called on me with her only daughter, a most delicate child of twelve years. Her mother had just discovered that her offspring's heart was diseased. Yet she had kept the child regularly and constantly at school from the age of five years—summer and winter. Her constitution was, of course, now entirely broken and prostrated.

To send children early to school, and confine them several hours there, is in itself a severe task, irrespective of study; but when undue study is superadded, the effect upon city and delicate village children, and the children of delicate parents, as well as indeed all children, may, as a general rule, be considered as tending to impair the mind, enervate the constitution, and enfeeble the health.

CHAPTER XXII.

CROUP—QUINSY SORE THROAT—ACUTE PLEURISY.

CROUP.

It does not enter into the plan of this work to discuss acute diseases of the lungs, chest, or air-passages, yet I cannot forbear noticing one or two, for the benefit of both the physician and the general reader, especially as these diseases are so perfectly curable, and yet, when neglected, are so rapidly fatal.

At the head of these stands *croup*. The subjects of this disease are usually children, from infants to those of seven or eight years of age. It is rarely observed after the age of twelve. Fleshy children, with short necks, full chests, and plump figures, and especially children whose parents are consumptive, scrofulous, or asthmatic, are extremely liable to attacks of croup. I have known many families where nearly all the children have died with croup. It seems in many cases peculiarly fatal. It arises from taking cold, and is most apt to occur in the wet and changeable periods of the year. City children going to the country, where they are exposed to cold air or wet, will often become subjects of croup. It is most apt to occur in damp, wet weather, during the prevalence of easterly winds. At these periods, and especially in spring, children are apt to be tempted into the gardens or fields, while the sun shines mildly upon them, and the young blossoms are putting forth, and the tender grass is spreading its green mantle over the earth ;—the young child, going forth full of life to enjoy these exquisite pleasures of sense, is often struck by the cold damp wind, and its chest seems pierced as with daggers. This is particularly the case when not protected by a full amount of clothing. The apparent warmth of the day will often induce carelessness in respect to dress.

In many cases, children whose health has been carefully preserved a whole winter in warm pleasant rooms, will be taken into the street

on some pleasant vernal day, and there be overtaken by cold winds or sudden changes of weather, and be immediately attacked with this disease. Sometimes, in later spring, they will visit the fields, and there sit down upon the damp ground, unconscious of the enemy that lurks beneath. In fact, every description of exposure to changes, particularly from heat to cold, without suitable protection, may be followed by attacks of croup.

SEAT OF THE DISEASE.

The seat of this disease is the throat and windpipe, about the vocal organs, and finally extending through all the air-passages to the lungs themselves. It commences with hoarseness, is followed by a shrill musical cough, as though the child were coughing through a brass-tube, great difficulty of breathing, speaking almost impossible, and shortness of breath; the face becomes flushed, the eyes almost bloodshot, an expression of great anxiety upon the face, the feet are cold, and the skin at first apt to be so. These symptoms, in a great many cases, rapidly augment and increase. Often, in a very few minutes, the child will be almost suffocated, and, if able to explain, he sometimes will say that his throat is full of cobwebs and strings, and that he cannot breathe on account of them. The internal lining membrane of the larynx or windpipe, and covering of the vocal organs, is rapidly thickened, so as to close up the throat in a most alarming manner. The conservative powers of nature are promptly brought in requisition to relieve the engorgement of the mucous membrane I have before mentioned, by secretions of matter; but the secretions at first are almost dry, and the matter is exuded in a membranous form, so as to line the windpipe and air-passages, which is frequently coughed up in the form of hollow tubes; or pieces of this secretion will come off apparently in the form or mould of the trachea and larynx.

In these cases there is exuded from the inflamed membrane lining the throat, a fibrinous fluid, which immediately hardens into what has the appearance of organized membrane, which adheres more or less firmly to the sides of the air-tubes. This exudation takes place rapidly, and, unless prevented or arrested, very quickly often fills up the windpipe, and sometimes the larger bronchi, and the patient dies from mere suffocation. When the disease has proceeded so far as to the

formation of this membrane, it is exceedingly dangerous, and most obstinate to cure. But if prompt and efficient measures are resorted to before this stage is reached, it is not very difficult to arrest the disease and prevent the formation of the membrane. I am aware that, in many cases, this croup comes on suddenly, and that before the parent knows there is danger, the child is struggling in its grasp. But if the child subject to the croup is closely watched, as it always should be, there will almost always be some indication of the approach of the disease in time to ward off the fatal attack. There will be cough, more or less, a little soreness of the throat, or some symptom of cold or disturbance. When any sign, even the slightest, makes its appearance, the alarm should be instantly taken, and the most energetic means instantly adopted to ward off the attack from the throat. Even after there are distinct symptoms that the membrane of the throat is inflamed, if proper treatment is immediately employed, the formation of the membrane may be prevented, as the engorged mucous surfaces may be relieved without forcing out this membraneous exudation. Having never lost a patient in my life by croup when called in season, I fully believe that the fatal cases so often occurring are the result of neglect or improper treatment, and very frequently of both. The physician is often called too late, and the treatment is often inefficient when he is called. All parents, guardians, and nurses, having under their care croupy children, should be thoroughly masters of the treatment of this disease. This is more especially necessary, as often a short delay may be fatal. The time required to send even a short distance, may be the period when relief could be immediately administered with perfect success, if the parents or nurses are acquainted with the nature of the disease, the remedies required, and their proper employment.

Croup is very apt to take place in the night; and those having under their care croupy children, should always have the remedies prepared, so as to be brought into use upon the first symptoms of the disease; and in this way the most violent attacks may often be relieved in half an hour, and entirely cured in one day.

To illustrate what I have to say, I will give one case, and the manner of its treatment. The subject was a little boy about six years of age, who was subject to a winter cough, and was liable, upon any exposure, to attacks of croup. At four o'clock in the morning, the father arose and observed that his little boy, sleeping in the same

room, was indisposed. On awakening him, it was found that he could not speak—that he was almost suffocated, so rapidly had been the closing of his throat. It was a case for immediate relief or immediate death. The course pursued was as follows:

His throat was immediately gargled with a little catnip-tea, so as partially to clear it, and externally it was thoroughly rubbed with a liniment—made of goose-oil, and hartshorn or *aqua ammonia*—so as to produce irritation and redness upon the surface. Whilst this was doing, a poultice was prepared from flaxseed-meal, goose-oil, and a very little *aqua ammonia* or hartshorn, and applied hot to the throat, extending to both ears under the chin, and down the whole throat to the chest, covering it, and tightly bound on. A simple dose of castor-oil was given at the same time, drafts of this flaxseed poultice were applied to the feet, and the child was laid down and covered up warmly in bed. The whole of this was but the work of a few minutes, as every thing was in readiness for such an attack.

In twenty minutes the child was relieved, and at nine o'clock of the same morning he ate breakfast with the other children, and was only confined to his bedroom during the next twenty-four hours.

A simple plaster of Burgundy-pitch, sprinkled over with a little powdered camphor and gum-guaiac, was placed between his shoulders, and worn there for a number of days. A perfect cure succeeded, without leaving any unpleasant traces upon the lungs or air-passages. Had this child been neglected even for one hour, his life would have been in imminent danger.

There is nothing which calls forth my sympathies more than to hear of the death of children by croup, when I know the disease is so perfectly curable.

Croupy children, during the changeable seasons of the year, should wear a plaster of Burgundy-pitch between the shoulders. It may be four inches long and two inches wide. On such a plaster, a few grains of camphor—say five grains—three grains of opium, and five grains of powdered gum-guaiac, all in fine powder, may be sprinkled evenly over it before it is applied to the child's back. This plaster cannot by any possibility do any harm, and to croupy children it is almost a perfect *life-preserver*. In some cases it may be rather too stimulating, and the camphor and guaiac may be omitted. It most usually will produce a little itching and slight redness; but not so as

to break the skin in any way, and will prove a constant source of protection to the croupy lungs and air-passages.

A great many other remedies may be used. My pulmonary liniment is almost a perfect curative, freely rubbed on the throat and top of the chest. A little Scotch snuff sprinkled on a tallowed-rag, and laid over the throat and top of the chest, is excellent. My cough medicines are also very useful, given hot so as to cause vomiting. The course I mentioned as taken with the little boy, is the true and very best one. Cold-water bandages and hot-water bandages to the throat and chest have often been successfully employed.

In cases where flaxseed-meal cannot be obtained, bread, Indian-meal, or carrot poultices may be applied, hot, to the chest and throat, having mixed with them a little goose-oil or lamp-oil, and aqua ammonia. Oftentimes a plaster with a little Scotch snuff will relieve the patient. Powdered slippery-elm bark makes an excellent poultice in these cases.

An eminent physician in Philadelphia, Dr. Nathaniel Chapman—long and well known there, and I might say everywhere—used to advise putting a cigar in a tumbler of water, and, after a few moments, commencing by giving the patient a teaspoonful at a time, until sickness and vomiting were produced. He also advised unfolding the cigar, and spreading the wet leaf upon the upper part of the chest.

A little syrup of ipecac, lobelia, or bloodroot, given so as to excite vomiting, will very often promptly relieve the child.

Whatever is done, should be done quickly and boldly, yet for my part I prefer the poultices I have indicated. External applications, and giving the child castor-oil, oftentimes a tablespoonful of cod-liver oil or common fish-oil, will at once relieve the patient; but the child should never be abandoned or given up, even if the disease has continued hours, or even days, for by proper and judicious management croup *may* be cured at almost any stage. Drafts upon the feet are truly invaluable, and should never be omitted. Children should not be exhausted by excessive vomiting, purging, or blistering. Simple irritation is far better than blistering. The room should be kept warm, and cold damp air should be most carefully avoided. The diet should be simple sago or tapioca gruel.

Let me add, that I hope every parent, guardian, or physician, who reads this article, may remember it, and adopt its directions

whenever called for. I will close the subject by giving one more instance, for the benefit of those whose faith in the curability of croup needs strengthening.

Some years ago a gentleman of Portsmouth, N. H., went to the post-office about eleven o'clock in the morning, and remarked to the clerk in the office that nothing but the importance of the letter could have induced him to have left his house, as his little son was dying with the croup, and that two physicians had given him up, saying that he could not live longer than till four o'clock of that day. The clerk immediately gave him a bottle of my pulmonary liniment, such as I apply to the chest in all cases of pain or oppression of the lungs or air-passages. He said to him: "Take this bottle of liniment, carry it home, place the little boy on your knee before the fire, and rub this freely on his throat until he is relieved." The father did as the clerk directed, and at four o'clock of that same day the little boy, instead of being dead, was playing around the room.

I would particularly advise the use of this pulmonary liniment as most valuable and reliable for the relief of croup. The formula for it will be found in the second volume of this work.

QUINSY SORE THROAT.

This is a disease to which many consumptive people, as well as others, are liable, especially in early life. Many persons in early life are subjects of quinsy, who in after life become the subjects of consumptive diseases. Quinsy sore throat is most apt to attack persons between the ages of sixteen and twenty-five; it more rarely occurs after the age of thirty, and rarely before the age of twelve. It arises from nearly the same causes as croup—from exposure to cold, suppressed perspiration, &c. And its proper treatment is, in many respects, very similar: counter-irritants, hot poultices to the throat, and castor-oil, promptly administered, will usually rapidly relieve the disease. Putting the feet in hot water is a most admirable remedy in pleurisy, in croup, and in quinsy;—the water may be made stimulating by the addition of mustard or pepper, and the feet may be continued in it for a half an hour—repeatedly adding hot water until the feet and legs are excessively heated and perspiration induced over the whole body. Hot boiled potatoes, mashed, put in a bag

and placed around the throat in cases of quinsy, is a most efficient remedy. This may be applied at bed-time, and will keep the parts hot and perspiring all night. Very often, under this treatment, where the attacks are not very severe, the patient will find himself entirely well in the course of twelve or twenty-four hours. In quinsy, after the disease is arrested, the neck, throat, and top of the chest should be bathed thoroughly in cold or tepid water every day. By this means the habit or liability to quinsy will soon disappear.

PLEURISY.

In a former part of this book I have spoken of chronic pleurisy and pleuritic consumption, but now I propose to say a few words on acute pleurisy and its treatment.

This disease is most apt to occur in persons of delicate constitutions and those who have weak chests. Many asthmatics, and even persons in consumption, when exposed to cold east winds or currents of air, after being in a perspiration, will be suddenly attacked with acute pain in the side—most usually in the right side, but often in the left.

You will remember that the pleura is a membrane that lines the inside of the ribs and the outside of the lungs. The first symptom of this disease is an acute pain, which rapidly spreads over the side and usually along the ends of the short ribs, extending upwards to the arm-pits, to the shoulder-blades, and to the back of the side affected. On attempting a full long breath, the patient finds it impossible from the excessive pain it produces—it seems suddenly cut off by the sharpness of this pain—the expansion of the chest being impossible. Fever soon ensues, the pulse becomes excited, a short hacking cough takes place, but is rendered almost impossible from the excruciating pain it causes. The lung of that side soon becomes affected, and, as the disease advances, an effusion of water or serum will take place into the pleura of the affected side, and the lung itself will become involved. The extensive inflammation may finally, and often does in many subjects, induce pneumonia, followed by collapse and death. Now, this disease is perfectly curable in its early stages; only a very few hours will suffice to cure almost any case of pleurisy, if the treatment be prompt and in season.

TREATMENT OF ACUTE PLEURISY.

In persons perfectly robust and of full habit, especially if the disease has only continued for some hours, bleeding from the arm may be allowed to the extent of eight or ten ounces; but in aged or delicate persons, general blood-letting should be avoided—in place of which three or four leeches may be applied to the affected part, and often with much benefit. Wet or dry cupping may be used, and in a vast many cases blood-letting need not be employed at all—it being unnecessary. My treatment in this disease is very simple. I direct the part affected to be rubbed with a little liniment, and I know of none equal to my pulmonary liniment; it is the most valuable compound I have ever known in the treatment of acute pleurisy. In the absence of this, hartshorn and sweet oil, or a strong tincture of red pepper mixed with laudanum—say a wineglassful of laudanum and half a pint of the strong decoction of red pepper. It may be applied hot to the side, and over this cloths dipped in hot water may be laid, and repeatedly changed, until the pain is subdued.

In a great many cases, mustard-poultices applied to the part until the skin is reddened, but not blistered, and then followed by the application of cloths dipped in hot water, will be found to be all that is necessary to break up the pain. The patient should at the same time take castor-oil, or rhubarb and magnesia, or some active physic, which will soon move the bowels, and in this way relieve the system. Very little other medicine will be required. If there is much cough, the patient may take tincture of ipecac, bloodroot, or lobelia, or my pulmonary expectorant, until some nausea, and even slight vomiting, are produced. The feet and legs should be kept in very hot water thirty minutes. The diet should be unirritating and very light until the disease is broken up. This practice, commenced early in the disease and persevered in, will usually relieve the patient in the course of a few hours. Poultices of powdered slippery-elm, flax-seed, or Indian-meal, or any other convenient material, may be applied to the side, mixed with a little hartshorn or laudanum. Sometimes hot boiled potatoes may be wrapped in a bag and applied to the side with great benefit; or a bag of hot oats, moistened with water or vinegar. These various remedies, one or all, or any that may be convenient, will usually be found perfectly effectual. They

do not contemplate the reduction of the patient's strength; and in all probability he will soon be about his usual occupation, without experiencing much prostration or being much enfeebled by the attack.

After the pleurisy has ceased and the patient resumes his usual health, he should constantly expand his lungs, so that no contraction of the chest may result from the attack. On the subsidence of the acute symptoms, the side should be bathed daily in cold water, and the remedies continued till every vestige of the disease be removed. Shoulder-braces may be worn for a time with much benefit, until the whole side is restored to perfect health, strength, and symmetry. From half-cured and neglected pleurisy, result a great many cases of pulmonary consumption.

CHAPTER XXIII.

ON THE TREATMENT OF INVALIDS—HYGIENIC, MECHANICAL, AND MEDICINAL.

ON THE SEPARATION OF CONSUMPTIVES—VENTILATION AND CLEANLINESS—CONSUMPTION MAY BE PROPAGATED—WHOOPING-COUGH DANGEROUS.

Persons who are in consumption, or who are inclined to pulmonary disease, should be discouraged from any very intimate association with other persons. If closely in relation with other consumptives, there will be a mutual aggravation of the condition of each; if with the healthy, the latter will be liable to suffer to a greater or less extent from the contact. Consumption cannot, to be sure, be said to be contagious, in the strict sense of that word. Still, the poisonous emanations from diseased lungs, borne out on the breath of the consumptive, and probably the unhealthy exhalations from the person, if constantly received into the lungs of a healthy person for a length of time, may and will corrupt the blood, and in some cases incline to pulmonary disease. Many times I have seen consumption propagated in this way. While it is thus evident that it is hazardous for the healthy to take the breath, and be much in contact with the persons of those in consumption, still greater hazard of such association between two consumptives is still more evident; where each contributes to pollute the air about them, and where each communicates to the other the poison generated in their diseased lungs and bodies. The consumptive should always therefore sleep alone in a well-ventilated room; and, if it can be avoided, should not inhabit even the same house with another consumptive. He should never allow the air in his own room, either night or day, to become "close" or "stifled," or loaded with the exhalations of even his own breath.

For these reasons I have always resisted, most strenuously, the suggestion, frequently made by my friends, in regard to establishing

a "Consumption Hospital." Such an institution would be no real charity to the invalid. The mere gathering together under one roof of a company of persons with diseased lungs, would inevitably place them in circumstances where the obstacles in the way of cure would be increased, whatever increased facilities for medical treatment and attendance might be afforded. I think the true path of charity towards consumptives lies in the direction of spreading knowledge among the people in regard to the true nature of consumption, the proper treatment, both medical and hygienic, to be adopted, the necessity that exists for cleanliness, exercise out-doors, free ventilation in-doors, and aiming to render invalids as comfortable as possible in the bosoms of their own families, or among their friends, as far removed as may be from other invalids, and surrounded by those who will give them the best care they can have. But I do not propose to discuss at length here the policy of "Consumption Hospitals," a matter which is just now being pressed upon the attention of the public. I leave the subject to the consideration of the wise and good.

What I have said above should not render the friends of the consumptive fearful to bestow all needed care and attention to their sick. I would not influence the mother, although she may be in delicate health herself, to desert the bedside of her consumptive child, nor counsel the son or daughter to neglect the parent struggling in the grasp of this disease. The sick-room of a sister or brother or friend should not, need not, be shunned. But still I would wish to impress the thought that precautions ought to be taken by those attending consumptive invalids, against receiving from them the seeds of a similar disease. The most perfect cleanliness in the room, the bedding, the clothes, and all the appointments of the invalid, should be constantly observed; particularly the vessel used to receive the expectoration should be frequently purified; and there should be the freest ventilation, and fullest enjoyment of the light and sunshine. The attendant should never sleep with the patient, nor in the same room, if it can be avoided, but should have a separate apartment; should go out into the open air daily, and practice taking long full breaths, if necessary using the inhaling-tube; should bathe the whole person every day, and should live on a good nourishing diet. If these precautions are observed there is little danger. Let me repeat, for it is important: throw open and air the room of the inva-

lid at least twice a day; lead the invalid himself daily into the open air, and there encourage him to inhale long deep breaths, to *wash out* his lungs, if I may use the expression, with the pure wholesome air. Have him bathe daily; if he have night-sweats, the clothes wet by their perspiration should be daily changed and cleansed. In all these respects the treatment should be as careful as if he had the typhus fever.

CONSUMPTIVES SHOULD AVOID THE WHOOPING-COUGH.

Persons predisposed to consumption should most cautiously avoid localities where there is *whooping-cough;* otherwise it may become to them a fatal pestilence. Even though he may have had the whooping-cough previously, the consumptive will feel the influence of the poison peculiar to this contagious disease. More or less irritation will usually be caused in the throat and down the air-passages into the lungs, giving rise to a cough, obstinate and distressing in its character, and which will frequently sink the person rapidly in true pulmonary consumption. All who have weak or irritable lungs, even though they may not be aware that they are predisposed to consumption, should avoid being much with or taking the breath of those who have the whooping-cough.

EXERCISE.

It cannot be denied that active exercise in the open air, patiently persevered in, is one of the most valuable means known to us of invigorating the system, and preserving its life and health. Young children should be early taught to exercise, vigorously, out-doors. In fact, such exercise should be practised by all persons at every period of life. Walking is at the command of any and everybody whose health is not too far destroyed, and the use of whose limbs is retained. It is very true that persons may suffer such a reduced state of health that they cannot walk, and it is also true that persons very feeble and debilitated may do better to ride than to walk; but moderate exercise, in some way, especially in the open air, drawing long, full breaths, expanding the lungs, and spreading the chest, will be found of vast benefit to the most delicate. Exercise most when you feel best, and best enjoy it. I have known delicate

persons to be dragged out of bed at an early hour of the morning, and with an empty stomach ride or walk miles ; of course they came home sick. Now this does not do ; it is not the proper mode. A person should not attempt to take long walks at unseasonable hours, or with an empty stomach, feeling hungry, and exhausted before he starts ; neither should he continue the exercise to a point of great fatigue. It is beautiful to see how children and youth are benefited by exercise—out-door exercise, whether for an object or purpose, or for amusement : the more they exercise and move about, the more health they enjoy ; the exercise of course being proportioned to their strength.

I prefer for very feeble persons carriage exercise to all other. They should ride in an open carriage. Horseback exercise is also very well ; but the person should not be exposed too much to a burning sun, to rain, or to hard wind. They should avoid riding on a very hard-going horse, especially if very delicate. It is preposterous to put a feeble woman, with a weak back perhaps, on a hard-going horse ; such riding is sufficient of itself to produce the very disease it is intended to relieve.

In some cases, where the lungs are broken or badly ulcerated, riding on a very hard-going horse will injure them, and sometimes produce bleeding. The exercise should always be in proportion to the strength of the individual. Invalids, and persons who are delicate and young, may commence with moderate exercise, and continually increase it, until they can perform hard, manual labor for a whole entire day. Working on a farm, moderate garden labor, is a most valuable mode of exercise, even for delicate persons. Indeed, there is no labor superior to that of the management of a small garden, breaking up the soil, tilling it, tending flowers, cultivating plants, pruning fruit-trees, &c., &c. Horticultural or pomological labors are beautiful for the invalid, and develop strength in the delicate.

A good constitution may thus be formed, after some years of effort, upon a very poor foundation, and good and well-established health gradually be introduced in a frame once sickly.

For young men, all the old-fashioned sports, such as pitching quoits, playing ball, cricket playing, bowling at "nine-pins," cannot be too much encouraged. Boat rowing is not so well, as it is calculated to strain the chest very much. I have known bad bleeding

from the lungs to follow efforts at rowing in several cases. Where much effort is about to be made with the chest, such as handling a fast-going or a hard-bitted horse, or rowing a boat, the patient will derive much benefit from the shoulder-braces, which tie back, and prevent the weight of the shoulders being dragged on to the chest.

I need not say any thing more on the subject, but merely to again repeat that going out daily in the open air—the pure, cool air—in all seasons of the year, should be adopted by every person as far as possible, unless it storms excessively, or there is an exceeding high wind, or it is keenly cold; in which case, the patient may walk in the house, in an open hall, &c., or out-houses, where he finds it convenient. He will find it extremely beneficial, and it should not be omitted.

CHANGE OF AIR AND PLACE FOR THE CONSUMPTIVE—THE BEST CLIMATE—SEA VOYAGES—GOING TO EUROPE, ETC.

I am often consulted by invalids on the subject of a change of air, and as to where they should go. I need not, however, here speak of the importance of such a change, as it is universally known that it often proves in itself a great remedy; but merely point out what I consider some of the principles by which invalids should be governed in seeking this change, and to notice some of the best locations to which to resort, and also the errors entertained upon this subject.

For the consumptive there is no period of the year in which a visit to the sea-shore in this country, north of Virginia, is safe, except during the last half of July to the first half of August. At that period there is generally about four weeks that the wind blows from the land, or very gently from the sea; and during this period the consumptive sometimes derives great benefit from a visit to the sea-shore. On the Gulf of Mexico, however, and the sea-coast north of it, as far as North Carolina, for several months in the year the air is warm, agreeable, and salubrious, and very beneficial, in many instances, to consumptives. At the North, it is limited, as I have said, to about four weeks; and through the entire autumn, winter, and spring, until late in July, the sea-air is too strong and too cold, and the winds too piercing for weak or diseased lungs. Consumptive invalids are very apt to bleed from the lungs if they visit the

sea-shore, and remain there long during those seasons; their cough will become greatly aggravated, the expectoration either much increased or almost repressed, so that the breathing will become exceedingly short and difficult. It is far better for the consumptive not to reside near the sea-shore at those seasons of the year; but if he is obliged to do so by circumstances beyond his control, then on the occurrence of the cold northeasterly storms, which frequently prevail, he should keep himself very carefully housed, avoid exposure to them, and obtain artificial warmth, if necessary, so as not to suffer from chill and cold—not so housed, however, as to deprive himself of fresh air and free ventilation.

In the interior of the country the consumptive may almost always find retreats as beneficial as can be found anywhere on the seaboard. In fact, there is no great choice of place, except to avoid, as a general rule, all large bodies of water during the cold and windy seasons. One of the worst places to any invalid, however, is where the disease originated, and any change of air he may adopt will be almost always for his benefit: he can hardly leave home, in fact, without advantage. The rooms which he has long occupied often become thoroughly poisonous for him; circumstances which escape his notice, and hidden causes, which no scrutiny can detect, will often operate to the extreme injury of the patient, but which are all often obviated by a removal from the patient's accustomed locality.

The finest country I have ever known for consumptives, in this northern climate, is along the shores of the Hudson River, commencing ten or fifteen miles above New York, and extending through the highlands on both sides of the river. It is for the consumptive the most healthy district of country I have ever known in any part of the world. I have seen patients recover when residing on the shores of the Hudson River, who, I believe, could not have been cured in any other locality known to me. The purity of the water, and the air on the dry lands on the shores of this river, certainly afford retreats for a temporary residence for the invalid and the consumptive that are not, I am confident, sufficiently appreciated.

A warm climate, in some rare cases, benefits the invalid; but by the large majority of patients little or no permanent benefit is derived from visiting the South, and the disease usually terminates quite as soon as if they remained at home—in some instances even sooner. It is in the Middle States of this Union—the State of New

Jersey, eastern Pennsylvania, the southeastern part of New York, the northern part of Virginia, Kentucky, Ohio, and Tennessee—that he finds the most favorable climate. Patients from either North or South often find a few months' residence in pleasant situations in the localities I have indicated, to be most beneficial; and here, by the aid of proper remedies, even desperate cases will often recover. A change from the Eastern to the Western States, and on to new territory, if the high lands are selected, is beneficial. Some parts of California furnish a beautiful climate for the consumptive and asthmatic, while other portions of it are extremely unfriendly. San Francisco itself—to many a very healthy place—is exceedingly insalubrious to the consumptive and asthmatic; and for a young and new State, California furnishes more cases of pulmonary consumption than any country I know, although this may probably arise from the fact that many consumptives go there from the old States in hopes that the change will restore them to health. The northern shores of Lake Superior afford a favorable climate for the invalid; and the same may be said, in fact, of all the western and southwestern country that is free from malarial influences. The mountains and high parts of Tennessee and Virginia in summer, and the lower lands in winter, furnish many delightful spots.

The consumptive requires first a change of air, and in effecting it, if he secures a dry atmosphere, rather cool, and free from malaria, the change will usually promote his recovery. A warm climate for any length of time is too enervating and prostrating; and in the high latitudes, such as many parts of Canada, the climate is too cold and harsh; and still, in some instances, a residence in portions of Canada East, where the patient's rooms are kept artificially warmed through the winter, and the temperature kept steady, will be as favorable to delicate persons as in any other location. In most parts of the Southern States it is too damp in winter and too hot in summer—the climate is too variable and changeable. Some localities will be found very beneficial to some patients and not to others; so that frequently consumptives have to change their location several times before they find one that is congenial, and that suits them. Many physicians are in the habit of sending their patients to sea in the months of April, May, or June. Very frequently do they call on me for advice about going to the Banks of Newfoundland, to the Gulf of St. Lawrence, or some other place on our coast. I have

known many consumptives visit these places, and I do not recollect an instance where the patient has been benefited; as a general thing, they have been injured. Damp, cold, chilly winds, heavy fogs, and the neighborhood of icebergs, must necessarily be bad for the delicate consumptive. If a sea-voyage is resolved on, the best course is to take a voyage at once to Europe. Indeed, a voyage to Europe, and particularly a residence for a time in Ireland, Scotland, England, France, or Germany, is often very beneficial, and I frequently recommend it to the consumptive. Indeed, I have witnessed most happy effects in patients who adopt my remedies, and travel in Europe for a longer or shorter period. The air far out to sea is often better for the consumptive than near the land. And still long sea-voyages are usually injurious to the consumptive, but short voyages, as from this country to Europe in the steamships, and fast, well-appointed, sailing packets, where the invalid may have all his wants supplied, are often highly beneficial and not often injurious. The same remarks apply to voyages of European invalids to this country, and a residence here, which often nearly cures the asthmatic, and usually helps the consumptive.

DIET.

As I have again and again referred to the matter of food, I shall be excused if I do not speak of it now at any great length. My omitting to do so, should not, however, be considered as indicating that the subject is not one of much importance.

I have observed before that it is far better to use cathartic medicines to cleanse the bowels from food, acids, bile, and excrementitious matter, than to attempt to do this wholly by dieting. There are a great many persons who undertake to starve themselves into health, or to live upon one kind of food; but the experiment is usually productive of no good, and is a source often of much inconvenience, indeed of positive injury, to the patient.

Now the food which we eat should carry with it all those constituents of the blood which the system requires for its continued sustenance, growth, and strength. It should never be taken in such quantities as to overload the stomach, or oppress the system, nor at such short intervals that the stomach is deprived of its necessary rest before repeating the task of digesting. There are great differ-

ences of opinion upon the number of daily meals, and also upon the length of time that should elapse between each meal. Nearly all the races of men, especially all the laboring and industrious ones, agree in taking their food three times a day: at an early hour in the morning, at midday, and at evening, allowing intervals of about five hours between each meal. This is probably about the correct rule, as it agrees with the ordinary experience of mankind. The fullest meals should be those of breakfast and dinner; the supper should be lighter and less in quantity. Dinner should never be taken later than five hours before bedtime, and in all cases the supper should be very light. Most persons make the dinner the principal meal of the day, which is usually eight or ten hours before bedtime.

In this matter of food and diet, experience is certainly a good teacher, and its counsel should never be lost sight of or forgotten in establishing our plan of living.

Children, in proportion to the tenderness of age, require food much oftener than adults. This peculiarity of theirs should be understood, so that when craving food they should be gratified—not of course to the extent of surfeiting or overloading the stomach, which is always dangerous.

In our reflections upon diet, we should remember that the human system is constantly suffering waste, which must be continually supplied by the food, which, as I have already remarked, should contain all the different elements or constituents that the system requires, and in their necessary proportion and in full quantity. An adaptation of the food to the climate in which we live, the diversity of the seasons, and the nature of our occupations, must not be overlooked.

The inhabitant of Siberia, Labrador, and the Arctic regions, requires that kind of food which contains a large supply of carbon to develop heat in the system, such as is found in the oil and fat of animals. Hence the Esquimaux, Laplander, and Greenlander, delight in blubber, train-oil, fish-oil, &c. They cannot subsist upon vegetables, particularly in the winter season, and they live chiefly or almost entirely upon fat meat; while in the tropical regions we find the natives subsisting almost entirely upon rice, vegetables, and fruits. Inhabitants of the polar regions delight in and eagerly desire alcoholic spirits; but the tropical inhabitants, left to their own tastes, employ

vegetable infusions, such as coffee and cocoa, as beverages with their daily diet, which are for them sufficient stimulus.

The waste of the system depends of course upon the amount of labor performed—the amount of power expended; consequently the laboring man requires much larger quantities of food than the idle man. In every point of observation, we must bear in mind the waste of the system, the condition of health, the power of digestion, &c. Of course these remarks which I have made upon food apply to persons in health; those in sickness must be governed by entirely different rules, such as their medical attendants may suggest. General experience in all the different parts of the world, among all the different tribes and families of men, teaches that the healthy appetite is a correct guide; that is, the appetite not coerced, or made unnatural by circumstances. The intelligent man or woman learns at an early period to determine the amount of food which his or her system requires, its quality, its quantity, and the times most proper for taking it. This observation they extend to their children and those under their care, and in this way no doubt arrive at conclusions as correct as can be formed upon this subject.

One of the first rules to be considered in regard to our food is moderation, and as a general principle a mixed diet is best, consisting of meat and vegetables, well cooked, and fruits in all their varieties and modes of preparation; not all at once, but rather sparingly, proportioned to the strength and waste of the system. It is a well-known truth that all persons who have attained great age, have been, at least for all the latter years of their lives, noted for the simplicity of their diet, and often for their abstemiousness, while a long-lived glutton was probably never known. I do not recollect in any of my readings to have ever met a case of a gluttonous man who had attained to any thing like the old age which we witness in the abstemious and the temperate.

As regards the details of diet, and the food necessary for individual constitutions, I would not for a moment attempt to state any set rules. The general every-day practice of sensible, common-sense people is doubtless the true one in every country.

The fleshy, stout person should avoid all such food as conduces to obesity, or that will make fat. Such a person will find that game, venison, wild land-fowls, lean beef, and mutton, are the most appropriate, so far as the animal portion of his food is concerned. A

lean, spare person may indulge in oily food if his stomach permits it. The dyspeptic should study the nature and peculiarities of his own constitution, and take only that food which agrees best with him, and should never break off suddenly long-continued habits of diet, which experience has proved to be salutary, no matter who may advise it. I would urge all and every class, as a general thing, to be quite natural in the selection of their food, and to eat enough without overloading their stomachs, or rendering themselves uncomfortable by quantity or quality.

BATHING.

For several years past the subject of bathing has received considerable practical attention from physicians, from invalids, and the community at large. Much has been learned from this experience, and some benefit has been derived.

In my "Six Lectures" upon Pulmonary Diseases, I urged, very strenuously, the advantages to be derived from cold bathing. My opinions have not changed upon the subject since the publication of that work. Still I am free to confess that I believe there are many delicate persons who are wholly unable to sustain the shock of cold baths in very cold weather. A system debilitated by disease is overcome by this treatment, especially delicate ladies and young children. From extensive correspondence and from long observation, I am convinced that a majority of invalids and patients lose faith in the importance of very free bathing in cold weather, from having received no decided benefit from it, or from being injured more or less by it. Yet I know many, and even invalids, who continue cold bathing in the freest manner throughout all seasons of the year, and declare themselves greatly benefited by doing so. The general conclusions of individuals, derived from experience and from circumstances, age, health, strength, &c., must not be ignored. We must take the human constitution, not as we would have it, but as it is, and remember that as there are no conditions or states of any two individuals precisely the same in all particulars, so there are no rules that will apply to all without exceptions. Whilst cold bathing is useful to many people, it is injurious to some, and quite unnecessary to others. All persons should keep the body clean, and should use ablutions sufficient to accomplish that object; but it may not be

necessary for all to bathe daily in cold water in cold weather, or indeed in any weather.

Laboring people generally, and those whose lives are spent out-doors, travellers upon our western plains, miners, gold-diggers in California, wood-choppers, farmers, &c., fishermen, sailors, mariners,—all these seldom bathe, and do not seem to require it; but in our cities, and in all locations where mankind are crowded together, where luxurious habits are indulged in; sedentary persons, those whose occupations confine them to a sitting posture, as in close, illy ventilated rooms, attendants upon the sick, residents in hospitals; those who work amid much dust and dirt, or are exposed to the fumes of mineral and chemical substances, carbonaceous fumes, the exhalations of animal or vegetable substances in a state of decomposition; young children, and finally all those who lead an easy, sedentary, or luxurious life, especially fleshy and stout persons;—all these will especially derive great benefit by observing the most thorough rules of cleanliness—bathing frequently in warm or cold water, soap and water, &c. This may be practised at the discretion of the individual, yet in these cases it is usually best to bathe daily. I much prefer simple ablutions to immersions in water. It must be remembered that the general effect of cold water is to invigorate the system, and increase the energy and activity of the vital forces; whilst warm water, if long continued, will have an opposite effect, enervating the system and rendering it more susceptible to the influence of cold, and to injuries from sudden changes of weather. All persons crowded together in close apartments should bathe frequently. Emigrants on emigrant ships ought to bathe daily in sea-water. In these situations the well-instructed captains and intelligent passengers will co-operate with each other in observing perfect cleanliness of person, thus dissipating the foul air which rapidly generates in crowded cabins, often developing some of the most fatal forms of disease to which the human system is liable. I recommend to invalids and delicate persons, when contemplating daily bathing, to commence with warm or tepid water, in the form of ablution, and in a warm room, where no current of air can strike upon the person, for this will almost always cause a cold in the delicate, and sometimes even in those who have the strongest and most robust constitutions. If the skin is cold and inactive, it is well to employ friction before bathing, by rubbing the

surface of the body with the hand, a coarse napkin, brush, or glove for the purpose, so as to arouse the circulation. Then the tepid water may be used, and if you please adding a little of any of the alcoholic liquors, or alcohol itself, rubbing the body thoroughly after each ablution, to excite a glow of heat. This may be practised daily, gradually reducing the temperature of the water until cold water can be employed at all seasons of the year.

Nervous persons, and those debilitated by care, watching, and general anxiety, or from sickness, will usually derive great benefit from bathing; still they must suit their own constitutions, and if they suspect that it injures them they should discard its use. Sea-bathing, in the very warm seasons of the year, is very agreeable and healthy for most persons, especially those of strong constitutions.

In cases of pulmonary consumption, colds, catarrh, bronchitis, king's evil, chronic rheumatism, &c., I usually advise thorough bathing, and it is generally attended with beneficial results. Few are the rules connected with the human system that are without exceptions; and by the judicious, intelligent, and humane, these exceptions are as much to be respected as the rules themselves. Let every person carefully observe his own experience, and when he has fully decided what is beneficial for him, cling unwaveringly to it, and never lose its benefits upon himself, nor be forced to make new experiments to confirm that which is already sufficiently established.

Hot baths, and especially hot foot-baths, are extremely beneficial in cases of recent colds, in chills produced by colds, in congestion of the brain or lungs, or sudden attacks of rheumatism.

In diseases of the heart, in asthma, particularly in persons of full, fleshy chests and obstructed circulation, I would urge the patient never to go under water, but be content with simple ablutions over the whole person, as I have before advised. To all consumptives, and those troubled with or liable to short breathing, I would say, never immerse yourselves in water, as I have known it to prove fatal.

THE WET-SHEET IN AGUE AND FEVER.

I have known attacks of ague and fever entirely broken up by the use of the wet-sheet. In these cases the patient is to be completely

wrapped in a cold wet-sheet, and placed in a warm bed immediately after the commencement of the cold stage of the disease. Full and free perspiration, even violent sweating, will take place in a very few minutes: the chill will be broken up, and the hot stage of the disease will not be developed at all. After perspiring one or two hours, the patient can be gradually cooled off, and finally sponged over freely with cold water, wiped dry, and resume his clothing, hardly realizing that he has been sick at all. Two or three repetitions of this treatment will often break up the ague and fever entirely, without any other assistance whatever. This treatment has this remarkable advantage, that no unpleasant effects are produced upon either the head, stomach, or liver, which is so frequently the case when quinine, calomel, and remedies of that class are much used.

I think this form of applying water for attacks of ague and fever is most highly deserving of our attention, and not only in chills and fever, but in the early stages of all febrile diseases. In measles and scarlet fever, when the eruptions do not fully appear, the employment of the wet-sheet for a short time will usually bring them out in the most desirable manner.

SWEATING.

Sweating the patient for recent colds, croup, congestion of the lungs, inflammation of the lungs in its commencement, is most admirable. Perhaps the best are rum or alcohol sweats. Place the patient on an open-seated chair; put under it a saucer with alcohol or rum in it, and set it on fire; cover the patient all over with blankets, so far kept from the person as to allow the vapor to pass all around the naked person, limbs, &c. In a very few minutes a violent perspiration will take place. Keep this up for some time—say ten to thirty minutes; wipe dry, get into a warm bed, and perspire some hours. Usually this will throw off almost any recent attack of cold, inflammation, pleurisy, lung fever, rheumatism, &c. These sweats are most excellent. Many other forms of sweating are used, and often with much success.

DRESS, CLOTHING, ETC.

I will detain the reader but a moment upon this matter. I am only required to notice its effects and its relation to health. Clothing

is required first to protect the system from the vicissitudes of the weather, which is the only object that concerns this subject. In our artificial life much more is required to be worn than in savage life. The true law is, that, under all circumstances, the body should be kept comfortable, being neither smothered by a superabundance of clothing, frozen or chilled by its scantiness, nor cramped by its fitting too closely to the form.

A person may bathe himself in water as cold as ice can make it if he has the hardihood to do so, but which I by no means would advise or recommend; still, after he has wiped himself dry, it is necessary that his clothing should be warm and comfortable, for although many persons can bear a sudden change of temperature, such as a sudden plunge into ice-water, yet no one can bear being continually chilled by the cold from insufficient clothing without injury.

In the cold winters of our northern climate, it is well for delicate persons to wear flannels or woollens; and when they go out they should put on a sufficiency of over-clothing to protect them from being suddenly chilled; yet this should not be carried to such an extent as to induce undue effeminacy, or too great sensitiveness to cold air.

Children and old persons require much more clothing than those of middle age, when the strength and vitality of the system is greatest. The degree of cold or heat which one can endure is very much a matter of habit; but when once a habit is established, and particularly when it has been long continued, it must not be suddenly broken off. Changes in dress, especially from a greater to a less amount, should always be made gradually. The winter clothing should not be thrown off too soon in the spring: persons should wait until the warm weather is fully established before they throw aside wholly their winter garments.

The feet should always be kept warm and dry as far as possible. A good old-fashioned rule is, "Keep the head cool, the feet warm, and the bowels free," in which there is much wisdom.

With these suggestions, I leave the whole subject of clothing and dress to the judgment of the intelligent reader. Let him, in the exercise of good sense, adapt his dress to his own constitution and his necessities.

BEDS, SLEEPING-ROOMS, ETC.

I will detain the reader with only a very few words upon this subject. Luxurious down-beds and warm rooms are particularly apt to induce effeminacy and reduction of the vital energies of the system. On the other hand, hard beds, scanty covering, and cold rooms are apt also to reduce the system, and they are most injurious to invalids and delicate people, and especially to young children. The true medium is found between very cold rooms and very warm ones—the condition of the beds and the age of the persons being fully considered. The very hardy and robust do not require any artificial heat in their rooms, whilst the feeble and delicate may require it.

Individuals and families must study this subject for themselves, remembering that persons of every age and every state of health require to be comfortable during the hours of sleep. If they can sleep warmly without the aid of artificial heat in their rooms, it is better that they should do so, and if they cannot, on account of diminished vitality, they should have their sleeping apartments artificially warmed. Good hair mattresses make excellent beds. In summer straw husks in mattresses are useful.

From long experience, I feel confident that open fireplaces or open grates are to be preferred in warming a house. Stoves come next, and air heated by furnaces last of all. It is certainly unhealthy to live in a house warmed by heated air. I could say much more on this subject, but would only warn all persons to avoid houses warmed by heated air.

CHEERFULNESS.

I hardly know of any thing that has a more depressing influence upon the health than low spirits, gloomy forebodings, viewing every thing upon the dark side. It will reduce the vitality of the strongest person, and is in every respect injurious.

All religious teachings that lead the mind to entertain great fear for the future, or great remorse in view of the past, are apt to be very pernicious to the health of those influenced thereby. I would urge every one, who would have health and long life, to banish, as far as possible, all depressing thoughts from the mind, and to cultivate cheerfulness and hope. Despondency of all kinds works

directly against the health, while cheerfulness and hope operate for it. For this reason I always recommend such amusements as are not too exciting, and not demoralizing in their tendency.

Dancing is one of the most delightful and elegant exercises for inhabitants of cities, crowded towns, and villages, who do not enjoy much exercise and who have not the means of extensive recreations. I would recommend its being early taught to children, and its forming a part of their school education. Laborers in workshops, male and female scholars at boarding-schools, students at theological seminaries and colleges, &c., should be urged to practise dancing every day.

Almost every form of exercise will be found more or less agreeable and healthy. Each individual must be his own guide on this subject. Let him receive the best advice that can be obtained, and make the amount of exercise and time of taking it such as suit his taste best; and above all things avoid every species of sloth, idleness, melancholy, and irreligion.

SELF-DENIAL NECESSARY TO INVALIDS.

One of the earliest lessons that the invalid should learn is that of self-denial. Whatever he suspects may injure him, or whatever from experience he has discovered to be pernicious to his constitution and health, he should carefully and rigidly avoid.

If he has discovered that coffee, alcoholic liquors, condiments, any indulgences, either in the quality, quantity, or time of taking his food, to be injurious, he should most sedulously avoid them. If he discovers that night-watching, late hours, or any irregularity in any of his habits, are productive of mischief and injurious to his system, or if he has observed them to have such effects upon others whose conditions and circumstances are like his own, he should avoid them. He will soon find that habit will make what is right quite as pleasant to him as to indulge in that which is injurious.

Mothers should strenuously urge upon their children the habit of self-denial. Vast numbers of children die annually because uninstructed in the practice of this virtue. Thousands of these lose their lives, bring on relapse of disease from which they were recovering, or render a curable disease fatal, from imprudence in their diet, from exposure, or indulgences. Although the path of duty may be

clearly pointed out and urgently recommended, yet wanting the habit of self-denial they do not follow it, but their lives are sacrificed by wandering from it, and allowing a slight temporary gratification to lead them to throw away health and life, when, had they denied themselves, they might have lived on to the full term of human life.

NEVER TELL AN INVALID THAT HE LOOKS SICK.

I have been sometimes greatly astonished at the treatment invalids receive from their attendants and relatives, and often from their nearest friends. Some of these practise the fault I shall mention through ignorance, some from mistaken kindness, some from bad manners, some from sheer malignity, and others from a desire to excite the fears of the patient, by which to secure the use of certain remedies for his recovery.

The practice to which I refer is that of telling the sick and nervous that they look ill, and upon any signs of amendment checking and depressing their hopes by questioning or denying the correctness of their belief that they are better or improving in health.

I once knew a mother whose son had been attacked by bleeding at the lungs, but whose case I did not by any means consider desperate. He had very fair hopes of recovery, but his mother insisted from the very first that he must die; that she had never known any one in his state to recover: her great anxiety was to get him prepared for another world; every effort towards mitigating his symptoms, prolonging his life, or producing a cure, she insisted were entirely useless.

On coming down from his room in the morning, his mother would say—

"James, how do you do this morning?"

"Why, mother," he would say, "I feel considerable better. I rested well last night; I coughed less, and I feel stronger."

"Oh, James," she would say, shaking her head, "don't deceive yourself. If you could only see how you look, you would not say you were better. No, James, you are not better at all." And this course she persisted in, till finally her distracted son fled into the streets a raving maniac, and eventually died insane, his death

occurring apparently from affection of the brain rather than the lungs.

I have witnessed the effects of this treatment towards invalids in many cases, on persons meeting their friends in the street, seeing them in their morning calls and at evening parties.

A few evenings since I met a small circle of individuals at the house of a friend. During the latter part of the evening a young lady came in, who, after being seated and receiving the compliments and gratulations of her friends upon her good looks, &c., and all inquiries for her health having ceased, commenced reminding each individual that he or she "must be ill;" one looked "much paler than when she last saw him;" another was "much worn out—she must be indisposed;" and in this way she made the circle of the company, giving a stab to each, and inflicting a pang of distress that would be sure to last during the whole evening. In this case she appeared to know no better, though she moved in what is called the "first circles."

I would most earnestly beg all persons never to tell another, in health or in sickness, that he or she looks ill. It is very rarely of any benefit, and in nine hundred and ninety-nine cases out of a thousand inflicts pain, and produces mental anxiety and more or less prostration of the nervous system; and, if often repeated, may produce very mischievous consequences. I once knew a gentleman, fifty-eight years of age, who was somewhat indisposed, but not much so, who called at a house upon some business, and there encountered a strange, eccentric creature, a brick-mason, who was at the time building a chimney. With his shirt-sleeves turned up, the trowel in one hand and a brick in the other, he turned to the gentleman, and said—

"How do you do, Mr. Hastings?"

"Well, Mr. Goodrich, I am pretty well, though not entirely so." He had ridden that morning several miles on horseback.

"Well," said Goodrich, "do you go directly home: your time is short; you won't live three days." Whereupon the gentleman returned home, and being nervous, he was overcome by fear, took to his bed, and died in the three days set for him.

This case excited a panic in the neighborhood, and the mason tried to frighten some other people to death; but, although he greatly alarmed them, still fortunately he produced no other death.

Every person should remember that it is an act of flagrant ill-breeding, besides being extremely injurious and unkind, to tell any person that he looks ill. It is better and wiser to say soothing words and to encourage hopes, which we may be sure are agreeable to those in health and most precious to the sick, for they are always received with feelings of joy and thankfulness.

CHAPTER XXIV.

SPECIAL REMEDIES IN PULMONARY DISEASE, MEDICINAL AND MECHANICAL—INJURIOUS REMEDIES AND TREATMENT, ETC.

COUNTER-IRRITATION.

Counter-irritation, in the treatment of disease, is oftentimes of immense service. For example: in cases of pain, congestion, or deep-seated humor, by exciting irritation on the surface, above or in the neighborhood of the diseased part, we shall be able to draw the humor or inflammation to the surface, and thereby relieve the suffering organ beneath.

In cases of pain in the side, breast, joints, &c., sore throat, congestion of the brain, pain in the bowels, in the spine, in hip diseases, in chronic rheumatism, &c., counter-irritation, in some form or other, has been at all times more or less extensively employed by all classes of physicians. This counter-irritation is employed in the shape of blisters for causing large sores or issues, or for simply reddening the skin.

I will ask permission here to mention a few of these, with my views upon them and the propriety of their use. In the first place, I will mention the ordinary

SPANISH-FLY BLISTER.

This is used extensively by a vast many physicians—sometimes with benefit, but, to my certain knowledge, oftentimes with injury. Blistering by this agent will too often prostrate the delicate, increasing their nervousness and depriving them of sleep. Indeed, in many subjects who are very susceptible, and where there is fever, it produces temporary delirium, which is imputed to the fever, but is oftener the result of the fly-blister.

I never use it at all, and would most earnestly discourage its em-

ployment in all reduced subjects and all delicate persons, and never apply it to highly nervous or sensitive parts. I have known fly-blisters applied to the abdomen and continued there until the patient was thrown into convulsions from the agony and suffering they produced.

There may be instances where a fly-blister, in the absence of any thing better, may be applied for a short time; but it should in no case be used upon excitable or nervous persons: above all, never on infants or young children.

MUSTARD POULTICES.

Mustard poultices may be applied to any part of the body for a short period of time, simply to redden the skin, with good effect. If continued for a length of time, they produce the most distressing blisters and soreness on the parts where applied. They are often serviceable in cases of colds, sore throats, pain in the side, or sudden accession of pain anywhere, if continued simply long enough to redden the surface without producing blistering; and this they will do in from ten minutes to one hour's time, according to the strength of their composition and the susceptibility of the patient.

EMETIC TARTAR.

This terrible mineral I utterly and totally repudiate in every form. I have seen the most distressing effects produced by it, and very rarely, if ever, any benefit whatever. I never use it, and would most unhesitatingly beg physicians and patients to avoid its use as an external application in any form.

CROTON OIL.

Croton oil, rubbed upon the surface of the body as a rubefacient, will not blister, but will bring out great numbers of little pimples, producing only a heat and an itching, and, when judiciously employed, is often very useful. There are very few objections to its employment in this manner. It acts without making the patient nervous or prostrating his strength.

LINIMENTS.

Nearly all pain of every description may be greatly relieved, if not permanently removed, by the employment of a suitable liniment, which may be so prepared as to produce a slight irritation upon the surface, and also to produce a medicinal effect upon the diseased part independent of the irritating action; extending at the same time its influence deeply through the pained part, neutralizing the poison or humor that may give rise to the pain, and relieving the suffering.

All invalids subject to pain in the side, chest, spine, joints, or elsewhere, will find vast benefit from a proper liniment, which they should always have at command, so as to be immediately applied in case of an attack of pain, or when pains recur, and in this way they may entirely do away with the habit of pain.

In the second part of this work will be found formulas of such liniments as I have found, from personal experience and long-continued use, to be most eminently beneficial. The one designated as "Pulmonary Liniment," which I employ and prescribe in all suitable cases, I consider one of the most useful agents in removing pain of any kind that I have ever known. In croup, in chronic rheumatism, in acute or chronic pleurisy, when rubbed over the chest upon sudden occasions of colds, cough, bronchitis, in swelling of the face from toothache, swelling or softness of the joints from rheumatism, and in almost every possible form of congestion, I have found this liniment superior to any other with which I am acquainted—hardly ever disappointing myself or my patient when judiciously employed.

PLASTERS.

In cases of pain in the small of the back, or about the hip-joints, between the shoulders, and in sciatic rheumatism, &c., I have known plasters to act very well. These may be prepared with Burgundy-pitch, with the addition of a slight irritant, opium, camphor, and gum-guaiac in equal parts. These, melted and intimately mixed together and spread upon soft leather, make a fine plaster, which may be applied to almost any painful part, where the skin is whole, with benefit. I do not much approve of large plasters applied to the whole chest, as they prevent its expansion, and are sometimes very injurious

from this cause. The plaster I have mentioned is excellent in cases of cough and pain in the side; but if you wish to apply it externally to the chest, it should be cut up in small pieces and applied in this way, so that it will allow the chest to expand in respiration without torturing the skin upon which it is spread. Still I prefer to bathe the chest in cold water, and apply a suitable liniment every day, which will usually remove pain much more readily and effectually than the use of any plaster.

PLASTERS FOR CHILDREN.

In cases of croup, bad colds, inflammation of the lungs, whooping-cough, &c., in children, I would most earnestly recommend to nurses or parents the application of a plaster, made of Burgundy-pitch, up and down the spine, between the shoulders. It may be made two or three inches wide and from four to six inches long, or extending from the back of the neck down to the small of the back. After the pitch is spread upon the leather, there may be sprinkled over it two or three grains of powdered opium, mixed with five or six grains of camphor. In a very short time after the application of this plaster, the child will usually be rescued from danger. It will bring the inflammation to the surface, with very slight irritation and with great relief to the chest. This, I think, is far better than to apply the plaster over the breast, because it does not prevent the expansion of the chest, which must certainly result, to a greater or less degree, if applied over the front of the chest. Plasters I never apply to the chests of children, nor do I think it advisable in any case in front, but apply them between the shoulders.

For laboring people, and those greatly exposed to cold and damp, who are often subject to rheumatic attacks, and for any person in circumstances where the affected parts require warmth and protection as well as medication, such a plaster will be found to be very useful; and much more to these classes than to those in easy circumstances, and who are subject to less exposure. To such people, as well as others, I would recommend the use of a good liniment and bathing in cold water. These measures will be much more agreeable and satisfactory to them. Blisters should never be applied where they produce so much pain and irritation as to prevent sleep and disturb the nervous system.

FOMENTATIONS.

By this term is meant the application of hot poultices, or warm or hot water, to any painful part, or a part in a state of congestion. The poultice or water may be mixed with herbs, or simply applied on a wet cloth. The application may, indeed, be made either hot or cold; for if applied cold in a case where there is sufficient vigor to secure a complete reaction, in a very few minutes it will become sufficiently warm to produce free sweating from the part to which it is applied. A cloth worn upon the chest is oftentimes of great benefit, and may be continually applied for months if the state of the chest requires it, and it is not disagreeable. I have known great benefit derived in acute attacks of pain from the application of a small bag of hops, wet in hot water, and continued for several days and nights, as the case may have required. Bags of oats, wet in hot water, are also found to be excellent, and will often contribute very much to the alleviation and cure of pain, whether acute or chronic.

BLOOD-LETTING.

Twenty-five years ago, and for a long period previously, blood-letting was most extensively employed in almost every disease, but particularly in attacks of inflammation, rheumatism, pleurisy, palsy, and indeed for almost every ill that flesh is heir to.

I once knew a man to lose seven wine quarts of blood in the course of two weeks. In this case an experienced physician, who possessed a little common sense, was called in to counsel with the medical attendant—an individual not greatly experienced, but greatly self-sufficient, who asked the physician why the patient jerked about and kicked around the bed as he did. "Why," replied the older physician, "have you ever seen an ox die after his throat was cut? and do you not recollect that just before death he makes great struggles?" "Yes." "Well, that is the condition of your patient."

The younger physician proposed to give him small doses of calomel; the older physician advised large doses of musk, but said that nothing would save his life, as his blood was nearly all drawn out of his body. This proved true, for the unfortunate patient soon expired.

As a general thing, blood-letting should be sparingly resorted to, especially in all delicate, nervous, and sedentary people. The robust may sometimes suffer a moderate loss of blood without any inconvenience, and not unfrequently with decided benefit; still I very rarely employ blood-letting in my practice, as I seldom meet a case that I cannot relieve much more satisfactorily by other treatment. In some rare cases, I recommend the use of leeches and topical bleeding, but scarcely ever advise general blood-letting, or find it necessary to do so, except in acute attacks in very robust persons.

THE INHALING-TUBE.

I have several times already alluded to the very great importance of securing a large chest and fully expanded lungs, if we would hope either for the prevention or cure of consumption; in fact, if we expect to escape from the effects of disease of any character to which we may be exposed or liable. But this subject cannot be too often pressed upon the attention of the reader; and I would here refer to it again, and, in connection with it, recommend the use of the *inhaling-tube.*

Whenever there is weakness of the lungs from whatever cause, or any tendency to disease there, there is always a disposition on the part of the invalid to "favor" the lungs, to stoop the shoulders, contract the chest, and take short breaths. This usually takes place unconsciously. But in some instances, patients have an impression that the less motion there is in the lungs the more likely they are to get well. They therefore purposely breathe as little as possible. This is, of course, all wrong. The lungs were designed for action. Motion is their natural state, and instead of disease being cured or prevented, it is almost sure to be induced if the full, free play of the lungs is in any degree impeded. Besides, all the vigor and vital force in the system is derived from the air received through the lungs. When the chest becomes contracted, the lungs folded up or compressed, and the breathing short, less vital air is received into the system than is demanded. Of course the whole system then suffers; the strength declines, the flesh wastes, the blood becomes impure, the digestion is impaired, the nerves are weakened, and above all, the lungs themselves suffer from the mischievous influences of this deprivation of air. When, on the contrary, the lungs are

kept expanded, when the figure is erect, the chest large, and the breathing deep and full, then the blood is perfectly aerated, every organ is imbued with vigor, the great processes of life go on regularly, the digestion and nutrition are healthfully carried forward, the nerves are strong, a fine life pervades the lungs, and the whole system is maintained in a state of *health*.

When the importance of large lungs and deep breathing is properly understood, most persons may do much towards securing them by voluntary efforts at full respiration—by forcibly taking long, deep breaths, holding the air an instant in the lungs, and then letting it slowly escape. This should be done many times a day, and continued until the lungs are fully expanded, and the habit of full, deep breathing is established. There are many, however, who cannot well forcibly inflate the lungs thus without some artificial assistance; and *all* are aided by it, if properly contrived. For this reason the inhaling-tube—originated by Dr. Ramage, an English physician, and improved by myself—is of the greatest service in expanding the contracted chest and lungs, in arresting disease where it has already invaded the lungs, and in preventing diseased lungs in those inclined to consumption. In the treatment of consumption it is all but indispensable. Where there are deposits of tubercles, or where there is ulceration, there is almost invariably established a habit of slight breathing—the breath being short and feeble. To break this habit up, and furnish the lungs with a constant, full supply of pure air, an effort is requisite, which will not be made unless there is some aid given. This aid the inhaling-tube furnishes. It is a convenient little silver instrument, so contrived that the air passes freely through it into the lungs on inspiration; and then, by the closing of a valve, it passes out less readily, requiring some force to expel it. This forcible expiration of air presses it deeply into the lungs—it penetrates every portion of them, unfolding those portions that have become collapsed or folded up, forcing open those tubes and cells that are closed by the secretions that have taken place, contributing to cleanse out the sores and ulcers, aiding the expectoration of the mucus, pressing together the walls of the cavities that may exist, promoting the absorption of tuberculous matter, preventing the further deposit of tubercles by quickening the circulation of the blood and purifying it, and by cleansing the surface and thinning the walls of all the air-tubes and cells. It is designed to be used three or four times a day,

from five to thirty minutes at a time, and with more or less force—from little more than a natural breath to nearly all the force the patient can exert—according to his condition and strength. There have been instances in which persons, most undeniably in true consumption, have been restored to health by the simple use of this tube, with bathing and exercise in the open air.

While it is thus valuable as a means of *curing*, it is not less so as a means of preventing consumption. I wish I could impress upon every person in Christendom, who is inclined to consumption—who has weak lungs, or who belongs to a consumptive family, the importance of forcibly expanding the lungs by the use of an inhaling-tube, and induce them thus to *adopt* its use, and continue it through life. I am persuaded that if I could do this, we might hold a day of jubilee, that the day of redemption from this monster scourge had dawned.

It is not alone in diseases of the lungs that the inhaling-tube is valuable. There are thousands of persons who suffer from nervousness, lassitude, feebleness, decline, dyspepsia, deranged liver, headache, costiveness, palpitation of the heart, or some other annoying ailment, whose troubles grow out of an insufficient supply of air: they may be sedentary people, who exercise but little, and therefore breathe but little; or they may have acquired contracted chests and diminished lungs. Now, all such people would find great relief most promptly by the use of the inhaling-tube.

SHOULDER-BRACES.

It is hardly necessary for me to recommend the use of shoulder-braces, or point out their advantages. They have now come so much into use, and their value in all cases where there is a disposition to stoop is so obvious, and has been so completely demonstrated, that the stupid prejudice which they encountered when I first advocated their employment in my public lectures ten or twelve years ago, has well-nigh disappeared. It is true that a few antediluvian "conservatives," both in the profession and out, may yet condemn their use on the ground that "*nature* furnishes the best shoulder-braces," or some other equally rational; but their senseless objections are little heeded. This is both gratifying and encouraging. Shoulder-braces should, of course, be so constructed as to be efficient in hold-

ing the shoulders back from resting down on the chest, while at the same time they may be worn with ease, and cause no annoyance. When this is done, they are most unquestionably valuable instruments.

All persons who have any tendency to stoop, or to throw the shoulders forward, and by this means contract the chest—thus diminishing the capacity of the lungs and impeding the action of the heart,—those who suffer pain in the chest, in the shoulders, sides, or back, under the shoulder-blades, or between the shoulders, will find vast benefit in wearing well-constructed shoulder-braces. Those who sit much—clerks, bookkeepers, office lawyers, secretaries, clergymen while writing their sermons, students, whether at school or in their own study-rooms, women who sew much—in fact, all whose occupations may lead them to stoop, if in the slightest degree inclined to do so, should by all means wear braces.

In the treatment of almost every form of pulmonary disease, and especially in tubercular consumption, we can rarely dispense with their use. Here there is in every case a tendency to a contraction of the chest and a stooping of the shoulders, and however the patient may be admonished to struggle against it, he will not resist the tendency without some artificial assistance. He must put on shoulder-braces. These, if made and worn right, will correct the habit of stooping, and, in connection with the inhaling-tube, aid him very much in securing an expanded chest, and thereby a restoration to health.

ABDOMINAL SUPPORTERS.

In my remarks upon the causes of pulmonary consumption, I observed that falling of the bowels, by the relaxation of the abdominal belts or muscles, is a frequent cause of weak lungs, short breath, and a sinking, exhausted feeling at the pit of the stomach, which may occur in all debilitated persons—at all ages and in both sexes. In a great many of these persons there is weakness in the loins, and in the lumbar region or small of the back, accompanied often with pain in the back when walking or riding, and every jolting motion becomes difficult or impossible. This is especially the case with ladies who are delicate and who experience falling of the womb. In many cases after parturition, the abdominal belts do not resume their natural firmness and tenseness, but become relaxed, and hence result

prolapsus uteri and falling of the bowels. If in this condition the female is in any manner predisposed to consumption, the lungs are extremely apt to become affected. Hence it is that women who are consumptive often experience, immediately after confinement, a great increase of their consumptive symptoms—shortness of breath being frequently a prominent symptom; and this is owing to extreme relaxation of the abdominal belts or muscles, which relaxation is the occasion of the falling of the bowels, and the consequent removal of the support from beneath the diaphragm or floor of the lungs. To remedy this as far as practicable, I recommend full support to the bowels and small of the back by the use of a suitably-adjusted *abdominal supporter*. The supporter which I employ has a large pad in front, connected by elastic steel-springs to pads resting on each side of the spine at the small of the back, and so adapted as to fully support the bowels and loins. I need not enter into a detailed description of abdominal supporters, as they are now manufactured in vast numbers, and in great varieties of form and workmanship. This instrument, when properly adjusted and perfect in its action, becomes of incalculable benefit to the patient, and to all delicate persons, whether male or female. I do not employ it in cases of children's diseases, for they generally seem to get along very well without it; but in almost all other debilitated persons I advise its use, as I find very few cases where it may not be used successfully, and where its use is not urgently demanded.

In cases of weakness or loss of voice, for public speakers, teachers, and others who must talk a great deal, the abdominal supporter is invaluable.

In the course of my practice I have known many who have been confined to their beds for months and unable to walk, from falling of the bowels, soon restored to usefulness and active health by the use of a well-adjusted abdominal supporter.

Sometimes the first application of an abdominal supporter may create or develop very considerable tenderness, soreness, or heat in the abdomen. In these cases the use of the instrument should not be neglected altogether, but it may be laid aside occasionally for a few hours; its use should be persevered in, and gradually the soreness and heat will be overcome. The patient may at first be unable to wear it more than one or two hours each day, and it may be necessary to wear it over several articles of dress, to decrease its direct

pressure. Bathing the abdomen at intervals each day with salt and water or some alcoholic liquors, or wearing a wet compress upon the bowels every night, and perhaps rubbing some liniment upon them, will usually, in a short period of time, remove in those parts all tenderness occasioned by the use of the supporter. When these objections to the abdominal supporter are overcome, the patient will generally acknowledge its inestimable value—he finds it a perfect life-preserver, and sometimes he can find no words to express his appreciation of its merits.

My abdominal supporter, by its lightness, elasticity, and perfect adaptation to the patient, has secured for itself extensive favor; and through the slow workings of individual experience, the medical faculty—cautious of novelties—have finally acknowledged its benefits; and now it is widely and extensively known, and its merits very generally appreciated. Much credit is due to all my co-laborers in the work of introducing and perfecting abdominal supporters, because they are truly invaluable to the feeble and sick.

THE BENEFITS OF THE ABOVE MECHANICAL REMEDIES STATED BY THOSE WHO HAVE USED THEM.

Facts are of course worth more than theories and assumptions. No one is so competent a judge of the real value of either a medicinal or mechanical remedy, as the person who employs it in his own case, and experiences himself the benefit of it. I am therefore induced to subjoin a few letters written to me by those who have used my supporter, braces, and tube, and who speak of them from their own experience. If their testimony shall influence other sufferers to find relief in their use, my object will have been obtained.

Letter from Rev. D. S. McAdie.

"FALKIRK, SCOTLAND, August 22d, 1855.

"DR. S. S. FITCH, M.D., New York:

"Dear Sir,—I feel cause to reproach myself in that I have not before this time written to you. When I called upon you about the close of last September, I was on a tour for my health, having, with the consent of my medical advisers, undertaken a voyage across the Atlantic in the hope that a sea-voyage might alleviate or check the

progress of the pulmonary disease under which I had, for about sixteen months previously, been suffering.

"I arrived in Canada after a sail of six weeks, somewhat improved in general health, but still feeling the disease in my chest much the same as it was when I left Scotland. In Upper Canada I heard of you, and of several parties there in the case of whom your treatment had proved successful in restoring them to health after they seemed to be hopelessly gone in consumption. A gentleman with whom I got acquainted there, and who had used some of your mechanical appliances, spoke highly of them, and recommended them as likely to be useful in my case. At Coburg I procured the shoulder-braces from your agent there, and also your Lectures on the Nature, Treatment, and Cure of Consumption. I had not the braces on more than a very few days when I began to experience their beneficial tendency.

"The perusal of your lectures afforded me some hope of restoration, if not to perfect health, to such a measure of it as that I might again be able to do something for my own support—that is, if I followed the directions prescribed. Previously I had little expectation of recovering, as I regarded myself, and was regarded by my friends, as far gone in consumption. The simple, yet convincing, because most reasonable manner, in which you treated the whole subject, and the probability which you showed there was of curing, in ordinary circumstances, diseased lungs, made me think that perhaps my case was not hopeless, and encouraged me to use with greater energy than I had done all likely means of recovery. Having, as I have stated, experienced great benefit from the use of the braces, I procured your abdominal supporter in Toronto, and found it, too, admirably adapted for the purposes intended. I then resolved upon endeavoring to see you personally. With this intention I went to New York. My interview with you there was one of the most agreeable things I experienced in America. Your kind, sympathizing manner, and the encouragement you afforded me to hope for a cure, tended to cheer me much, as it considerably dispelled that sadness and depression of spirits which are almost unavoidably attendant on apparently hopelessly-broken health.

"Shortly after I saw you I returned again to Canada, and thence soon after to Scotland, where I arrived on the 1st of November, 1854. I commenced the use of your medicine, and your other appliances,

immediately after seeing you. But as I was for some time then moving from place to place, I was able only very partially, on some occasions, to follow your recommendations. I, however, soon began to experience the beneficial effects of even a partial trial. The medicine from which it appears to me I derived most benefit, were the Cathartic Pills, the Cherry Pulmoniac, and the Universal Tonic. I have also had considerable relief by the use of the Pulmonary Liniment when troubled with a sore throat. But the mechanical appliances recommended by you have been, if possible, of more use to me than the medicines. I have already said that I had the braces and supporter before seeing you. I do not know that I have ever derived more benefit from any one thing of the kind, than I have from the braces. For several years past, I had been feeling a tendency to stoop considerably when walking. This had partly been caused by studying much, and sitting in a bad position when so doing, and partly by the disease in the chest. When I commenced the use of the braces, I felt as if it was impossible for me to wear them; for on attempting to stand erect, I felt severe pain in the breast, and as if something would break there. But by persevering, and gradually tightening them as I could bear it, the disagreeable sensation in the breast almost entirely subsided, and altogether the breast became very much stronger. When I arrived in Scotland, at the time I have stated, I was much better in health than when I left it; but the alteration in my appearance, which chiefly struck my friends and acquaintances, was my upright gait. They could not understand how I had got over the stooping. On learning that it was by means of braces, not a few applied to me to ascertain if I could get something similar for them. But I have not been able to learn that there is any thing similar on sale in this country. By the means of the brace, I can now stand or walk as erectly as any one. So great, indeed, was the change produced upon me, that on my arrival home I had to get my coats altered to suit the form of the back, &c. I wish I had a quantity of the braces, for the supply of many who require and desire them.

"The supporter I find extremely useful also. Without it I feel I cannot take a long full breath, but with it I breathe freely. I wear it and the braces constantly, and indeed would not feel comfortable were I to want either. It appears to me that the supporter must be of incalculable benefit to all who have weak chests—that is, if they

use it. To delicate females it must be, I should think, exceedingly useful.

"I have used the inhaling-tube you so kindly gave me, almost daily, and have found it of great benefit. It always gives relief to the chest, and makes the breathing more easy. Through the use of it and the braces, my chest is, I know, much broader and fuller than it was this time last year. I consider the inhaling-tube an excellent little instrument for the purpose intended, and wish that it and the other articles I have referred to were known and for sale in this country.

"I may mention, in conclusion, that on arriving in Glasgow from America, though my health was improved, I did not consider it prudent to return to my former employment there—viz., that of city missionary, but to endeavor to obtain some situation in the country, and where I would not require to speak much. I very soon got notice that a governor was required for this institution (work-house). On application I received the appointment, and have discharged all the duties since December 1st, 1854. My health during that time has not been what may be called robust, but on the whole I have been comparatively well. We had a very severe winter here—the most so that has been experienced for many years; but during the whole of it I was never a whole day at a time unfitted for duty through illness. I have a little cough still, occasionally, in the mornings, and a sensation in the right lung as if all were not quite sound; but on the whole I enjoy pretty good health—much better, indeed, than once I ever expected to have.

"With best wishes for your welfare,

"I am, dear sir, ever yours gratefully,

"David S. McAdie,

"Falkirk, North Britain."

Letter from Mrs. E—— H——

"Warwick, Franklin Co., Mass., September 19, 1854.

"Dear Dr. Fitch:

"Sir,—Doubtless you have been led to anticipate from the place at which this letter is dated, that I have changed my location—and so I have. Before I had used your remedies a fortnight, I was able to be conveyed from Princeton to Warwick, a distance of about

thirty miles, in an easy carriage, by travelling but a short distance in a day. Had I had sufficient notice previous to starting that I was to return home, I should have consulted you as to the propriety of undertaking such a journey in my present state of health, but I had not; and I was so anxious to return home that I would risk my life, almost, in attempting to reach it; but no evil results from this journey, but rather good. I think it has been highly beneficial to my health. I feel much better than I did when I left P——: there were many circumstances connected with my staying there, opposed to my recovery. And now I am at home!—dear, dear spot!—and though humble, there is no place like it.

"I am using your remedies faithfully and perseveringly, according to directions, and think they are having a happy effect.

"Your supporter I prize very highly—think it was the principal instrument in enabling me to return home, for without it I verily believe I should have fallen to pieces. I could not wear it all the time at first, but now experience no other feeling but comfort and support; and although I cannot walk around much yet, I suppose it is because my whole system is debilitated, rather than because the supporter does not have the right effect. The inhaling-tube I am using daily; it does not fatigue me but very little to use it; often wish I could use it longer than directed. Would any injury result if I should? * * * * *

"Truly yours,
"Mrs. E. H——."

Letter from L. T. Fales.

"Griggsville, Essex Co., Ill., September 10, 1856.

"Dr. S. S. Fitch:

"Dear Sir,—It has occurred to me recently, that it is due to you that I should make some acknowledgment of the very great benefit I have derived from the use of your remedies, and particularly your abdominal supporter. Some twenty years ago I sustained an injury from riding a hard-trotting horse. I was not very sensible of it at the time, but in the course of a few months my health failed me; I had great weakness at the pit of the stomach; I lost my strength very much; my food did not seem to nourish the system. I became very much emaciated. I consulted a number of the best physicians

in Washington, D. C., where I then resided, but I received no help from them; in fact, they could not determine what my disease was. They did not attribute my illness to the injury from horseback-riding. I continued to grow worse until 1847, when I had about given up hope of being better. I then consulted you. You at once laid your finger on the source of the difficulty. My violent horseback-riding had injured and relaxed the abdominal muscles, and caused a falling of the bowels. From this cause all my difficulties proceeded. You prescribed for me, and gave me a supporter, together with some medicines. The effect was wonderful and immediate. I at once improved. The faintness, pain, weakness of the stomach, were relieved; the costiveness and diarrhœa I had suffered, severely by turns, were subdued; my strength and flesh came back, and I have enjoyed eight years of fair health. I am quite confident that but for your help I could not have lived long after the time I applied to you. I have always felt most grateful for what you did for me.

"Respectfully yours,

"L. T. Fales."

Letter from Miss H—— E. W——.

"Mt. Holly, Vt., January 1st, 1855.

"Dr. S. S. Fitch:

"Dear Sir,—I have taken my pen to inform you of the benefit I received from your shoulder-braces, supporters, and medicines.

"I was quite low before I received your medicines, and was not able to do any thing. I could not sew but a few minutes before it would seem as though I could not take another stitch, there was so much pain through my lungs to my shoulder-blades, and the back of my neck. I received your remedies on Thursday evening. I put on your shoulder-braces, and after a little while I felt quite relieved, and went to sewing, and was not as tired at night as I was in the morning. I wore them about three months, and do not have to wear them any more. I was troubled very much with weakness across my kidneys. I put on your abdominal supporter: within three days I was well as ever. I think it is the best thing a lady can wear, if she is troubled with any female weakness.

"Yours truly,

"Miss H—— E. W——."

Letter from Mr. Merritt Martin.

"New York, March 4, 1856.

"Dr. S. S. Fitch:

"Dear Sir,—Some years ago I found myself an invalid, and scarcely knew how or why. I had a constant sense of faintness and weakness, a sinking, and as you have in your Lectures well expressed it, distressing, all-gone feeling at the stomach. Standing or walking about wearied me excessively. I had a tired, dragging feeling about the chest and shoulders. These difficulties rendered me unfit for business or labor, and my life miserable. In this condition I was induced to get one of your abdominal supporters. I was relieved as soon as I put it on. I have worn it constantly since, and would not be without it for its weight in gold. Why do not more who need just this instrument for falling of the bowels, wear it? I desire to thank you for the very great relief and benefit I have derived from it.

"Yours respectfully,

"Merritt Martin, 731 Eighth-av., N. Y."

Letter from Mrs. Sylvanus Johnson.

"Iowa City, Iowa, July 14th, 1855.

"Dr. S. S. Fitch:

"Dear Sir,—I have worn the supporter almost constantly for five years, and would not be without it. I presume it has done more for me than medicine. I supposed at the time I wrote that consumption was rapidly approaching, if not already seated, and cannot but feel very grateful to a kind Providence that you have been the means of restoring me to so comfortable a state of health.

"Mrs. Sylvanus Johnson."

INJURIOUS REMEDIES AND HURTFUL TREATMENT IN CONSUMPTION.

In the disease called *consumption*, which almost universally has a double character, being both bronchial and tubercular, two destructive agencies are acting upon the patient, and in opposite directions; so that in most instances the ordinary treatment will be found to hasten the disease; and the case that would permit the continu-

ance of life two or three years without any medical treatment whatever, is often brought to a fatal termination in the same number of months. Many judicious medical men, therefore, after repeated attempts to cure consumption, and observing the prostrating effects of almost all medical remedies, and their fatal results, finally arrive at the conclusion that it is better to let the patient alone and leave him to pursue his own instincts for relief, rather than to prescribe their medicines; and in this they are perfectly correct and truly humane.

The general directions for the treatment of consumption as laid down in books, are found to hasten rather than retard the disease, which is owing to the confusion that prevails upon the subject of the disease itself, and the attempt to cure two distinct diseases, prevailing upon the same organ at the same time, by a single remedy; and hence, in the treatment of pulmonary consumption throughout the entire history of medicine, we find a constant succession of single remedies suddenly springing into popularity, becoming fashionable for a time, and universally applied, and that with little discrimination, and then abandoned as useless.

The history of these remedies exhibits a series of most unhappy failures—fatal to the sick and derogatory to the profession—yet, of remedies for a time lauded to the very skies as perfectly reliable, thoroughly curative, and applicable to every case: these failures finally giving birth to a universal dogma, which has been that pulmonary consumption *is incurable*, and that, consequently, the failure of any treatment designed for its cure leaves no stain upon the escutcheon of any physician, whether eminent or obscure—whether he be the highest professor in the highest school, or the lowest empiric in the lowest grade of quackery. It has been always orthodox in the most accredited schools of medicine, to employ any remedy that has been the prevailing fashion, however ridiculous or absurd. The treatment, thus changeable, and thus worthless in all its changes, has been continued until thousands of men, revolting at the results, and declaring that no treatment can be more unsuccessful, are prepared to turn their eyes away from the profession, to almost any source that promises relief.

I will recall to the memory of the reader a very few of those *infallible* and *fashionable* remedies. Their history is a most instructive one, not only in its bearing upon consumption, but also in its appli-

cation to all other diseases; for it is a thoroughly established fact, that without a clear perception of what the disease is and what its complications are, the application of remedies must necessarily be empirical—must be quackery—an experiment, without previous success to warrant its employment or justify its continuance, and without any true analytical knowledge of the disease to explain its failure, or from its failure to construct any plausible theory or any successful practice that would lead to a cure. From the employment of a remedy adopted upon a false theory and in the darkest ignorance, no light of course *can* arise. The effect must be only to discourage the physician, and to make him eager for some new remedy; and, generally, any remedy that for the moment seems to mitigate any one symptom, will be seized upon as a curative for the disease itself. I will mention a few of these.

First, the preparations of *mercury* have, at different times within the last seventy years, been employed by various physicians—the most humble and the most eminent—in the attempt to cure consumption; while, however, it has never risen to the dignity of a universality, it has been used by different physicians during this whole period, down to the year 1857. Within ten days of the time I am now writing, a lady called on me, laboring under bronchial tubercular consumption, who, in the latter part of the past winter, was salivated for six entire weeks, under the prescription of one of the oldest and most eminent physicians in New York; and yet no man living or dead ever witnessed any success from such practice, any assistance to the sick, or any credit to the physician. Its effects are, on the contrary, most wonderfully to accelerate the progress of the disease. Diseased lungs once thoroughly mercurialized, are nearly deprived of all hope of cure. Woe to the unhappy patient with weak lungs, who has his system saturated with mercury!

Mercury, taken into the system, becomes often a direct cause of tuberculous deposits, by weakening all the powers of life. The particles of mercury in the lungs themselves arrest the circulation and become a direct nucleus for tuberculous deposits, and tubercles already formed rapidly soften. Indeed, mercurials are among the most powerful agents for producing consumption, for extending its development, and hastening its fatal termination, of any and all of the mad remedies admitted or employed by the medical faculty.

The next that I would mention is *foxglove* (digitalis). Forty

years ago this remedy enjoyed a high reputation. Its praise echoed through Great Britain and through this country; and one learned writer and celebrated physician declared that he wanted nothing more—that foxglove, used at any time and persevered in, was as certain to cure consumption as Peruvian bark and its preparations were to cure ague and fever. It was fashionable during many years for physicians to prescribe foxglove; and it was quite amusing to observe the complacency and self-gratulation enjoyed by them when descanting upon the virtues of this remedy.

I should think that foxglove must have been employed with considerable ardor and much assumed confidence for at least twenty years; when, finally, its use, and almost its remembrance, disappeared. It retains its place in the *materia medica* only as a simple narcotic and sedative, remarkable for its powers of depressing the vitality of the system and lowering the pulse. So little did physicians know of the nature of pulmonary consumption, that they employed this remedy for many years because it had the simple property of reducing the pulse, and lessening in a small degree the action of the heart: just as if increased arterial excitement was the cause of this disease.

Following up this idea, other similar agents were sought for; as poor foxglove, falling from its universal popularity, had become truly distasteful to all patients and friends of patients. Then *prussic acid* was introduced; and this, from its powers of depressing vitality—of reducing the pulse—was thought to promise the most curative results. It is true that timid physicians rather shrunk from employing a remedy a few drops of which might occasion instant death; but the bolder spirits cried out, "Dilute it! dilute it! and it may be given with the safety of milk." It is true that the point of dilution was not agreed upon soon enough to prevent the sacrifice of a few valuable lives.

The late Dr. John Eberly, author of "Eberly's Therapeutics," so well and widely known in this country, who in his day was certainly one of the best educated practitioners of medicine in America, told me that he received a small quantity of prussic acid directly from Berzelius himself, and, acting under the most careful directions (as it was so expensive, he did not try it upon any poor person), he gave it to one of his most respectable female patients in Philadelphia. So quieting was the effect, that she died in twelve hours.

I need not say that prussic acid is now never spoken of in any quarter as a curative agent in consumption. It finds a place, however, in some mixtures, but as a mere palliative.

EMETIC TARTAR.

Having some properties in common both with foxglove and prussic acid, has been long employed because it so readily reduces the pulse and so thoroughly prostrates animal life. It is tenfold more energetic as a sedative than foxglove, and without any of the poisonous properties of prussic acid. Its power of depressing life and reducing the vital forces of the system, is equal to any effect desired by the physician who wishes the vitality of his patient placed on the rule of reduction descending. But its effects in lung disease are certainly most appalling; and if given to the consumptive after the deposition of tubercles, or after softenings have commenced, it will hurry him out of the world much faster than consumption itself. By its direct effect in reducing vitality, it has been, as it is to this day, one of the most destructive agents ever employed by physicians in hastening pulmonary consumption to a fatal termination. It was very considerably employed for a great many years, and is even now used by some physicians. Whilst foxglove and prussic acid were never thought of for external application, emetic tartar—a mineral in its origin, a chemical salt in its composition, and a terrible caustic in its constitution—was employed to eat up the patient. Dr. Joseph Clapp, considered a most respectable and intelligent physician—a resident in the south part of Philadelphia, where he enjoyed a large practice—told me that to him belonged the honor of having first employed emetic tartar with lard, in the form of an unguent or an ointment; of such strength—I might say of such commensurate strength—that when he applied it to the chest, and kept it on about twenty-four hours, he was able to remove from half an ounce to an ounce of living flesh from the breast of the patient. He declared that its effects were truly remarkable, yet he did not intimate that he had ever seen a person cured by it.

The use of this remedy as a caustic, more or less severe, has been continued up to the present. Emetic tartar is exceeded by scarcely any thing in its power of producing intense suffering. It attacks flesh, skin, muscles, bone—all give way before this devas-

tator. I have seen the breast-bone cut entirely through to the cavity of the chest by it. Woe to the unhappy wretch who is the victim of this practice! Terrible distress results from its application—the strength is rapidly prostrated, all power of healing in the lungs is utterly removed, and the poor patient, hopeless and helpless, sinks into his grave. I never remember to have witnessed an instance where any one in consumption received any benefit from the application of emetic tartar to the chest. It has been applied in tens of thousands of cases in the last thirty years. Dr. Clapp's idea was, that you could hardly make too great a sore on the outside of the chest, if a sore already existed inside of it. I need not say that I have never employed or advised its use, externally or internally, in consumption, save very slightly in some rare cases, and in very minute doses.

The next great remedy that I will mention, following immediately after foxglove and prussic acid, and used also with them, but more particularly with foxglove, is *blood-letting*. This, indeed, arose almost to the dignity of a universality. It had its origin in some essays on consumption, written by Dr. Gallup, a celebrated physician residing in Vermont.

The practice of blood-letting in consumption, following his suggestions and teachings, became nearly universal in this country. The quantity drawn out from, was frequently only limited by the quantity in, the body. I personally knew one man who was bled twenty times in nineteen days. During the intervals of bleeding, there was made a free use of foxglove. Probably nothing could have horrified his attending physician more than the suggestion of a tonic, or in any way sustaining the vital functions. The physician seemed not aware that his patient had any vital functions; he appeared to have only the single idea that the poor wretch had blood, and that from blood proceeded inflammation and consumption: therefore it should be all drawn out as fast as possible.

This practice so rapidly cleared off the consumptive sick-list, that it was pretty soon abandoned, although it is still practised more or less by a few physicians.

In some rare cases, blood-letting may be admitted to the extent of a few ounces, yet I seldom ever employ it at all.

Iodine.—This mineral, considered one of the greatest, if not *the* greatest, gifts of chemistry to medicine, on its first discovery was

lauded to the very echo as an agent capable of curing every form of scrofula and nearly every possible form of skin disease. It was supposed to be very useful in pulmonary consumption.

It was used and exhibited in almost every variety and mode—in the form of pills, plasters, tinctures, lotions, vapors, &c. I have no doubt that iodine, in some forms of scrofula, is an excellent remedy; but in my hands it has never been successful as a curative in any disease whatever when exhibited alone and without auxiliaries, which were good in themselves, therefore leaving in doubt the amount of benefit derived from the iodine; but in combination with other remedies I sometimes exhibit it in minute doses. It has the effect of producing pain and stricture in the chest; and this it is apt to do, unless given in very minute doses. This effect is produced in every form of combination if used in large quantities; if inhaled into the lungs in the form of a vapor, it will produce pain there and tightness, much of a rheumatic character. In fact, I have rarely seen much benefit derived from the use of iodine in any form of consumption or in throat disease. Its application to scrofulous swelling should be conducted with the greatest possible care, so as to prevent these swellings from being driven to the internal organs; or, in other words, to prevent their striking in. I have, in a great many instances, witnessed deplorable results from this practice.

When scrofulous swellings or lumps come upon the neck or any part of the body, we may be positively assured that this is an effort of nature to deposit out of harm's way the superabundant tuberculous material existing in the blood. If we attempt to disperse these deposits without elevating the general health and guarding all the great internal organs of the body and opening all the emunctories, these deposits will almost certainly be transferred to the internal organs, where they may produce a vast amount of mischief.

In combination with potash, iodine has been much exhibited, and is still; but in many cases where this combination has been used, I have thought that potash alone acted better, and that without any of the bad effects that may be produced by iodine. It is doubtless true that, in many cases, iodine may be profitably used for a short time for a specific purpose—it is no doubt a stimulant and excitant of the system; in some cases by these properties alone it may be useful. In cases of old sores and running scrofula, it is no doubt extremely useful; but I again repeat, that as a remedy in bron-

chitis or in any form of consumption, I have rarely found it so useful as to depend upon it altogether, without the addition and assistance of every auxiliary with which I am acquainted. But combined or uncombined, if its use is pushed to much extent, its effect is to excite pain in the lungs and walls of the chest, often continuing for a long time, and becoming difficult to eradicate. If depended on to cure consumption, it will prove a failure; and, in fact, the same remark may be made of the whole list of mineral agents.

Passing out of the mineral region, we next find ourselves embarked upon a sea of *oil*. Not oil and oleaginous substances in general, but one oil only—*cod-liver oil*. This remedy has been employed in Germany for a great number of years. There they have not been very particular, as they have employed any description of fish-oil, whale-oil, &c. Train-oil and lamp-oil have been exhibited for a long period of time, not only in Germany but nearly in all the north of Europe, where it has enjoyed a very pleasant reputation, particularly in domestic practice, in the treatment of colds, coughs, &c.

About sixteen years ago it began to be talked of in England and whispered in this country; yet great professors here received it with expressions of unmitigated contempt and disgust.

Dr. Nathaniel Chapman, the old and able professor of the theory and practice of medicine in the University of Pennsylvania, at Philadelphia, could not really find words to express his contempt for this new aspirant to favor. He applied his whole powers of wit, sarcasm, and ridicule, with which he was largely endowed, to combating the idea of ever introducing such a disgusting article into public use. However, it slowly made progress; and because the utter failure of every thing else excused any experiment with any new substance, *cod-liver oil* very unctuously made its way upward to the dignity of a widely-spread universality.

About the year 1851, its comet assent may be said to have culminated; when nearly every consumptive in the civilized world was invited to partake of its thoroughly curative virtues and its sure-curing benefits. It was everywhere adopted, and every thing else was rejected. It was in truth the reigning goddess of the day; and not to have been orthodox upon cod-liver oil, was to show surpassing ignorance in the progress of medicine. Professors lauded it, and physicians everywhere prescribed it; at the same time re-

ferring to other remedies as being quite unnecessary when they had such a potential agent at their command.

A medical friend of mine, at that time visiting the lung hospital at Brampton, near London, found over seventy persons in consumption, of different ages and sexes; every one of whom, without the least discrimination, was taking cod-liver oil, and nothing else.

One physician in this country, at that time writing to me, and a well-educated man too, said that if I would throw away my medicines, he would inform me of a remedy which he had discovered, and which would cure every case of pulmonary consumption: and that was *cod-liver oil.* I informed him by return of mail, that I had tried and tested it in lung disease, even when its employment was considered derogatory to me as a physician—that I had perceived some benefits to arise from its use, but a cure I had never known effected by it.

It is now rapidly sinking in the public estimation, and, as a curative agent, will no doubt fall into greater disregard than its merits deserve; for there are conditions and circumstances of the lungs and of the patient, when cod-liver oil becomes a useful agent. To some it is a tonic, a deobstruent, an alterative, and, when judiciously given, care being taken that the lungs supply air enough to vitalize it, it is useful in bestowing fat upon the attenuated.

EMETICS.

Forty years ago the treatment of nearly every disease, and almost every variety of indisposition, would commence with an emetic. This practice, then entirely universal, is continued more or less down to this day.

The Thompsonians exaggerate its importance, and sometimes vomit their patients two or three days together; and in some cases thereby produce death. This very exaggeration has, perhaps, tended to do away in some measure with the system of vomiting among sensible physicians.

The "old-school" physicians usually employed tartar emetic—especially the advocates of "heroic practice;" whilst those more humane and considerate towards their patients, employ ipecac. Many an old man or woman, upon becoming a little indisposed, and suspecting an accession of fever, has received a prompt quietus from a dose

of tartar emetic. I recollect several such instances, where old, feeble persons have been sent to their long home by one or two hours' vomiting, and the prostrating effects of emetic tartar.

At one time, emetics of *sulphate of copper* were greatly in vogue; and invalids, especially consumptives, would be vomited in a mild manner every day by its use. This practice has now entirely disappeared, or is pursued very little, so far as I know. Lobelia and ipecacuanha are still more or less employed; but the use of emetics is, at this time, far less general than I have ever known it, and I believe is fast being discarded entirely. Their merit, as a general thing, is certainly questionable and doubtful.

There are, of course, some peculiar circumstances in which an emetic is called for; as, for example, where some poisonous or otherwise deleterious thing has been swallowed, or where the person has endangered his life by surfeiting. It may also sometimes be the case, that the stomach is loaded with bile or vicious secretions to such an extent that an emetic will be useful in ejecting it. I prefer, however, in these cases, relying on cathartics. But if vomiting is resorted to, a simple warm-water emetic, or warm water with a very little mustard in it, is all that is required—is just as efficient as a harsh dose of emetic tartar or ipecac, and it is followed by no injurious consequences. In lung disease, for which emetics have been unaccountably used, this treatment is most absurd and pernicious. They prostrate the strength, weaken the stomach, and sometimes cause bleeding at the lungs by vomiting, and can do no possible good. I, of course, entirely discard the use of emetics in lung affections; and I do not call to mind any chronic affection in which I believe they can be of any benefit.

CHAPTER XXV.

VARIOUS FORMS OF CONSUMPTION, DESCRIBED BY THE PATIENTS THEMSELVES.

THERE are some persons who read the descriptions of disease which they find in books, with the impression that the writers draw upon their imagination for their facts ;—that such cases of disease as they describe, with the various symptoms stated, do not really exist; or if they do, that they cannot be so minutely known to the physician. If, indeed, the description is of a disorder with which the reader is himself affected, he usually finds that *his* condition,—with all his "pains and aches," his sufferings and annoyances,—is accurately stated, perhaps better than he could state it himself. But when the case is one of which he has had no experience, he is apt to think that it is "made up," to match the writer's *theory* or the system of treatment he thinks proper to employ for its cure. Now, that some writers may not thus substitute fancy for facts derived from actual observation, I will not vouch; but that I have not done so in what I have said of diseases of the lungs, I desire to convince my readers by presenting them with extracts from letters written to me by my patients themselves, when applying for advice and treatment. It has only occurred to me to do so, since the manuscript of this work was put into the hands of the printer; and I have not time therefore to select from the many thousands of letters I have on file those which would be *best* adapted of any I have to show the various phases, forms, and symptoms of consumption. The letters copied in the following pages, I draw from my files almost at random; and yet, if I am not mistaken, the reader, particularly if he is an invalid, will be interested to find that the views of consumption given in this book are very completely corroborated by these letters. I permit the writers to tell their own stories in their own simple way—often quite informal, and always inartificial,

but usually very expressive. I desire also that the invalid, as he reads these statements, may be encouraged to hope for relief, when he sees that others, who have been afflicted as he is, have been restored to health.

STATEMENTS SHOWING THE VARIOUS STEPS OF PROGRESS IN THE DEVELOPMENT OF TRUE TUBERCULAR CONSUMPTION.

Case I.

Mr. Geo. D. Y——, of Ogdensburg, N. Y., writes me, October, 1856:

"Dr. S. S. Fitch—Sir: For nearly four years I have been taking doctors' advice and drugs, without receiving any benefit. About three months ago I quit taking any thing, for I thought there was no use tormenting myself with swallowing trash any longer. But in the *Tribune* the other day I read certificates of cures, of cases apparently worse than mine, and I thought that, as a last resort, I would write to you, state my case, and ascertain whether you thought I could be cured. In 1852 my health began to decline; felt weak; my legs felt as if they could not support my body. Then I had a bad cough also, and sickness and oppression of stomach. In the fall I improved sufficiently to work that winter and the next summer: took nothing but a little cod-liver oil. In the fall of 1853 began to grow weak again; cough set in; and after New Year kept my bed and room the rest of the winter. Spit a few mouthfuls of clear blood, also bloody matter; had a sore throat and swelled tonsils; had no regular physician; took syrups of different roots, and bathed every day with a wash of spirits of ammonia and whiskey. In the spring my health improved; worked during the month of July. Over-exertion brought my cough back. Was advised to go to Texas; stayed there two winters and one summer; took no medicine; had the chills and fever for six months; came back this spring a good deal worse. Heard of W. G——'s remedy; tried it, and found it a failure.

"I will now give you a sketch of my symptoms. I am twenty-six years old; a carpenter by trade; have always lived in Ogdensburg; except a weakness of stomach, health very good; never had a cough in my life before this attack; five feet ten inches in height, and twenty inches across the shoulders; thirty-two and a half inches around the chest, twenty-nine around the waist—thirty-one and a half when my

lungs are fully expanded. Never was very fleshy; weighed when well one hundred and fifty-five pounds—now weigh one hundred and thirty-two pounds. Always walk very erect; do yet, except when tired; have brown hair and whiskers, blue eyes; father died of what was called consumption, at the age of fifty; do not know what disease my mother died of; both of my parents' families very healthy. Breath short at times; no skin disease except a little scaly roughness on the face at times. Have a good deal of headache; some pain in the left side in my chest; also at the lower edge of my ribs above the hips; heavy, oppressed feeling back part of the neck between the shoulders and at the collar-bones. Have sore throat, swelled tonsils at times; heat and dryness in the throat; voice weak; hurts me down to the pit of the stomach to speak loud. When I take a cold it settles in my head or throat. Have had a cough more or less for four years; for the last year coughed all the time, and spit up nearly half a pint of matter per day, of a dirty-white color; does not sink in water. I have no more cough than is necessary to raise the corrupt matter that gathers in my chest; were that checked, my cough would leave I think. I cough and raise most at night. Nearly two years ago I spit up about a pint of blood; it seemed to come from the midriff, at the lower edge of the left ribs; have been tender there, and short of breath at times ever since; have raised bloody matter several times since—a few mouthfuls at a time. I lie on my right side and back; when I lie on my left side there is a rattling or wheezing sound, seeming to come from under the collar-bone on my left side; sometimes it makes me cough when I breathe full. My left side rises more than the other; I do not know why it is so, as I never had much pain or bad feeling in my right side. I have had very little chills or fever for the last six months. Never had a regular night-sweat, but in warm weather my head would sweat so that the hair would be as wet as though dipped in water. I go out every day; can walk a couple of miles in the course of the day. At times, after walking a short distance, the matter in my chest seems to rise up to the upper part near my throat, and I have to stop and cough until I raise it, or I would choke. I am also troubled with an all-gone feeling at the top of the chest, pit of the stomach, and across the bowels—feel it most when walking. When I get excited, or when I have a severe fit of coughing, my heart will beat very hard, and sometimes, without any apparent cause, will

beat so hard as to shake my whole person. Am rather nervous; have oppression at the stomach a good deal; not particularly after meals have sickness at the stomach a good deal. When I have a bad cold in my head, I raise a clear stringy matter; when any of that lodges in my throat, it always makes me vomit after eating, for I have a coughing spell after every meal—sometimes after eating pretty well. When I awake in the morning, the matter that I raise is thin, of a white color, and of a nasty taste, and I vomit it up, mixed with yellow bile, which is very bitter. My bowels are regular at present, but are generally costive; appetite variable; heartburn almost every night; coffee, or any thing burnt, taken into the stomach, gives me the heartburn. My back feels rather weak at times—about the middle—some heat there, and in my head; feet do not trouble me; no bloating; some wind in the stomach at times; no pain in the limbs; no rheumatism; no deformity; no wounds. Had the chills and fever in Texas for six months; took two or three doses of calomel at that time,—no more that I know of. I think that I am rather bilious. My complexion—a yellowish cast all summer—but is generally clear. Have not taken any thing for the bilious disorders. I am not married. I cannot read or talk loud without coughing. I can walk as fast as men generally do for a short distance; the least exertion makes me cough. I have done no work in three years; have used up all the property I had made, principally in travelling for my health; am dependent on my relative, and that to me is more bitter than my sickness. I have now answered about all your questions to invalids; and wish that if you think that there is a reasonable chance for me to regain my health, that you let me know as soon as convenient, and also your most favorable terms for such of your remedies as I may need. If you think that I cannot be cured, tell me so plainly. I have looked Death too long in the face to be much alarmed at his approach. I have one of your books, and from reading it I am convinced that something like your supporter was what I needed long ago. I have shoulder-braces, but they irritate and tire the shoulders so that I cannot wear them."

Here are presented the usual phenomena of *hereditary phthisis*—a steady, gradual, but insidious development of the disease, spite of all palliative remedies, and somewhat accelerated no doubt by chills and fever and by exposure.

CASES ILLUSTRATING HOW CONSUMPTION IS DEVELOPED, BY SIMPLE COLDS, IN THOSE PREDISPOSED TO IT.

Case II.

Mr. W. P——, of Livingston, Ill., wrote me in August, 1856, for advice and treatment. It will be seen that he had been the greater part of his life a robust man, until his taking a violent cold in April preceding the date of his letter. But he belonged to a consumptive family; his father died of hemorrhage of the lungs, and his mother of asthma or heart disease. The poisonous taint lurked in his blood, unsuspected by him, until a neglected cold determined it upon the lungs, and consumption was developed. He says:

"I was born and reared in the southern part of Pennsylvania, and came to the state of Illinois about eighteen months ago. My occupation is that of a tinner. My figure is short and rather broad—ordinary flesh—have usually been quite straight, but since I have been sick have become rather stooping: dark complexion, hair, and eyes. *My family is somewhat predisposed to consumption.* My mother died with the asthma or heart disease at the age of seventy; and my father died at the age of seventy-six, of hemorrhage or bleeding at the lungs. I have usually had good health until last April, when I was once out over night exposed to the damp night-air, and caught a severe cold. I did not get rid of it, and a cough soon set in, with chills and fever, soreness of the bones, &c.; and for six weeks I had hard night-sweats, which were very debilitating, and I lost in the time some eighteen pounds of flesh. I succeeded in breaking these sweats, and now feel somewhat better, but far from well. I have still a dry hacking cough, and find I have little strength or endurance; a few hours' work fatigues me, so that I am obliged to lie down, and I have a soreness directly on the breast-bone and a little way above the stomach; also a pain or soreness in my side. I am nervous, sometimes sick at the stomach, and have the blind piles. I have taken calomel, quinine, and iron-rust at various times, but have now quit taking medicine altogether."

It will be noticed how evidently this cold, which, in a person of a pure constitution, would have passed off without material injury, developed the latent tendency to disease in the lungs, and ended in consumption; for undoubtedly this man had at the time of

writing tuberculous deposits in his lungs—a condition which would have terminated fatally but for the right kind of treatment efficiently employed.

Case III.

The following case presents similar features.

Mr. J. W. P——, of Jacksonville, Ill., wrote, in August, 1856:

"Dr. S. S. Fitch—Sir: Having heard of your successful treatment of lung disease, I thought I would write you in relation to my own case. About Christmas I caught a severe cold, from which I have never recovered. A cough at once set in, for which I used a cough-mixture, which palliated it somewhat, but did not cure it. Since that time I have employed several physicians and taken a great deal of medicine; and among other things have tried the inhaling of medicine under Dr. H—— of St. Louis, but from which I derived no benefit, but rather grew worse all the time. I have now quit all medicine. My father's mother, and some of her brothers and sisters, died of consumption, and have, until within a few years, been troubled with asthma and short breathing. My cough is now very bad, and I raise a great deal of yellow matter. My throat is sore, with swelled tonsils, and voice lost, so that I have not for two months spoken above a whisper. I have fever every day, and sometimes night-sweats. My limbs are swelled and painful, appetite capricious, bowels irregular, with bleeding piles. I have a rather delicate constitution, am lean and slender, and have a contracted chest; twenty-one years old, fair complexion, and blue eyes."

Here the hereditary predisposition to consumption, passing over one generation, fastened upon the next in the person of this young man, and remaining latent until excited by the cold, then suddenly developed, and rapidly progressed to an advanced stage, spite of all the useless treatment he had. Had proper measures been employed, instead of a simple palliative in the shape of the "cough-mixture" he speaks of, the development of the disease might have been at once checked, and the young man's ordinary health restored.

Case IV.

Mr. D. P. V——, Esq., attorney, Lafayette, Ind., writes:

"Having seen your 'Medical Exponent,' and having also been urged by a Mr. B. of this city (one of your old patients) to consult

you in regard to my health, I have concluded to do so. About six weeks since I took a violent cold, which settled on my lungs. Since then I have coughed a great deal, and raised a good deal of matter, which sometimes has a yellow, mattery appearance, and at others it is light-colored, and somewhat curd. I am considerably hoarse, and have catarrh badly. I discharge almost incredible quantities from my nose every day, and my face on either side frequently becomes sore. I frequently get sore also in the regions of the tonsils, which have been affected more or less for a number of years. I raise more in the morning, immediately on getting up, than at any other time. I have some fever at times, but no night-sweats. I am greatly debilitated, though still able to be about. My constitution is delicate, and three years ago I had a hard fit of sickness, and have not been in good health since. My father and mother were usually healthy people, but my father's sister died of consumption. Permit me to add, that several years since I read your 'Six Lectures,' and know that I have derived great benefit from their teaching, and would have received more had I been more attentive to them."

In this case there was only a slight tendency to consumption; still that tendency, slight as it was, was developed into active disease by a cold, which, most unfortunately for the patient, was neglected and allowed to remain on the lungs, until he applied to me.

CASES IN WHICH CONSUMPTION COMMENCED WITH BRONCHITIS.

CASE V.

Mr. R. R. V——, of Ravenna, Ohio, wrote me, September, 1856:

"DR. S. S. FITCH:—Dear Sir: Having labored under a difficulty of the lungs for some time, I have concluded to send you a description of my case as near as I can, intending to give you a pretty good insight into my situation; and if you think there is any prospect of doing me good, to put myself under your treatment. My occupation is civil engineering, my age thirty-three years, height five feet ten inches, weight when well about one hundred and forty-five pounds—it is now about fifteen pounds less—complexion dark, hair very dark and curly. The lung complaint has prevailed in my father's family, but not in my mother's.

"About twelve years ago I took a bad cold, and it settled in the

tonsils of the right side; they became very sore. I had pains in my breast and back, and I became debilitated. I was then engaged in the study of a profession. I quit that and engaged in the engineering business. My pains left, throat got well, and my health became very good. During the winter of 1852, I took a cold, and it appeared to settle in my throat at the upper edge of the breast-bone. The irritation was very great, causing almost instant coughing. This lasted for some weeks, and then yielded to simple treatment. The next winter I was taken the same way, but found relief in a short time by the use of mild remedies. From that time up to the first of June, 1855, I had a sort of influenza, which left me with a bad cough. The seat of disease appearing to be in the depression of the throat at the upper edge of the breast-bone. The irritation was such as to cause almost incessant coughing night and day. My spittle was frothy, with the exception of a few mouthfuls on rising in the morning. The constant and hard coughing caused soreness in my breast; appetite failed, strength left me, and my breathing became quick and difficult. I tried various remedies; among others, inhaling from a prescription by my family physician. This gave me some relief at first, but finally ceased to be of any benefit. This was in the month of July. September 1st, 1855, I coughed very frequently, but not so hard as previously; was almost free from soreness in my chest, breathing about the same, general health poor. At this time I put myself under the treatment of Dr. W—— of Cleveland, homœopathy. I tried his medicine for some six weeks; thought I was benefited in my general health, but could see no change in my disease. I quit that practice, and about the first of November commenced to use stimulants freely, sometimes brandy, but mostly ale, bathing with warm water and spirits, and using no medicine except some simple thing to allay the irritation at night: this I would use perhaps three or four times during the night. I had night-sweats. I used sage-tea. Under this treatment, to a considerable extent regained my health. I engaged in my usual occupation. Had no chills or night-sweats, and could endure the cold as well as at any time in my life. My breathing became free and easy, so that, aside from the cough, I have for the last ten months enjoyed excellent health, until within about four weeks of the present time, when my breathing became bad. But my disease remained about the same, except that during the day I did not cough quite so often;

and at night I rested well, sometimes coughing three or four times, at others none.

"This brings me to my situation at present. My breathing is somewhat hurried and difficult. I have never used any braces for support, and I am almost as free from stooping as I ever was. My voice remains clear and firm as formerly. Appetite good, and find no injury from the free use of all wholesome food. I rest pretty well at night: sleep mostly on my back; lying on my side induces coughing, especially the right side, but not so much but that I frequently fall asleep lying on my side. My strength has failed to some extent, but I can ride or walk about most of the day. I never lie down except an hour or so about noon. I have night-sweats, not very copious—sweating mostly on my back. Have been troubled of late with pain in the small of my back. The great difficulty appears to be in my right lung, near the upper part. During the space of twenty-four hours, I raise about a gill, one-half of which will be frothy, the other a dirty yellow mucus that floats in water, except sometimes a mouthful or so when rising from bed in the morning. In the early history of my disease I used Dr. H——'s inhaling medicine, but found no relief—rather injury, and through the advice of a friend I tried J——'s Expectorant. This was only about five weeks ago. I took half a bottle and then quit it: it produced too lax a state of the bowels, and brought on night-sweats. At present I am using no medicine except a powder given by my physician for the night-sweats, and syrup of morphine—about the proportion of one grain per day. I am using at present Port wine as a stimulant."

Case VI.

Mrs. S. T——, of Manchester, N. H., wrote, June, 1856:

"Dr. S. S. Fitch—Kind Sir: As a lady friend of mine, and once a patient of yours, presented me with a copy of your lectures, I have been highly interested the past week in perusing them. With the advice of my friend I write asking your kind advice. I am quite hoarse; have thought perhaps my left lung was somewhat diseased. Have consulted several physicians; they all say my lungs are not diseased, or no local disease. My throat is sore by spells, seems to extend up to my left ear; have been hoarse since two years last October. Am not subject to cough even when I have a cold. Took

cold two weeks ago; coughed last week some, raised some thick yellow phlegm, but lungs feel rather sore when I cough or hack. Been short-breathed for nearly two years; on my left lung scarcely ever get a long breath on that side; at times I think my lung is swollen, a weakness at the bottom part of my lung, or what some physicians say is right over my heart. At times I feel a weakness, a sort of soreness, when I move my left arm, and arm feels weak down as far as my elbow. I have plenty of blood, and it seems to circulate well, so Dr. D——, an old physician, tells me, but yet I am hoarse and short-breathed. I am thirty years of age, of medium height, have blue eyes, hair not very light nor dark, rather slim. I sometimes feel as though I wanted to let my shoulders fall forward to rest; am subject to the sick-headache."

CASES IN WHICH CONSUMPTION RESULTS FROM SALT-RHEUM AND OTHER HUMORS, OR SKIN DISEASE.

Case VII.

Mrs. E. A——, of Peterboro, N. Y., wrote me, Aug. 10, 1856:

"Dr. S. S. Fitch—Dear Sir: In consequence of the delicate state of my health, I am induced to consult you, hoping that you will, by the Divine Providence, be able to afford me relief. I was born and brought up in the north of Scotland; was married at the age of seventeen, and am now twenty-seven. I am of slender figure, rather tall, chest flat and inclined to stoop, dark hair and eyes, fair complexion, and am subject to asthma. I am troubled with short breathing, headache, pain in the chest, neck, spine, shoulders, back, stomach, bowels, sides, and limbs. I have soreness of the throat, weak voice, and hoarseness; have had a cough for three years, and raise a great deal of tough phlegm, and sometimes vomit up frothy phlegm mixed with yellow matter. I cough most mornings and evenings. I have fever and night-sweats, also palpitation of the heart, sour stomach, distress and pressure at the stomach, nausea, often to vomiting wind, with a sinking, exhausted, all-gone feeling at the top of the chest and pit of the stomach, appetite capricious, bowels costive, blind piles, weak back, gravel, cold feet, and am easily exhausted. I ought to mention that I have always been subject to the *salt-rheum*. Sometimes this is out badly on my hands, and then again it will disappear. When it is out I feel much better otherwise.

But when it disappears from the hands, my cough is worse, I expectorate a great deal, and all my symptoms are greatly aggravated."

Here is a distressing catalogue of ills, all having their origin in this poisonous humor, which, when developed on the surface, is called *salt-rheum*. In a little time longer it would have terminated in true consumption of the lungs, as it has for three years been fastened there already. It is perfectly clear that this case could not have been cured without removing the humor.

Case VIII.

Mrs. M. T——, of Corinna, Me., wrote me, May, 1856:

"Dr. S. S. Fitch—Dear Sir: Having seen one of your books of Six Lectures, and hoping that you may be able to give me relief, I desire to state my case and ask your advice. I was born and brought up on a farm in a new settlement. When I was between eight and twelve years of age, my mother said one day as she had company, and speaking of the health of her children—myself being the third—'Martha is well enough—nothing ever ails her.' I was then short, thick, and straight, and lived with my mother till I was thirteen years of age. My parents were poor, and I began to work out for my clothes. When fourteen I worked two miles from home through the summer, and walked home and back again. I frequently got my feet and legs poisoned in the woods the same summer, so that they were a raw sore from the toes to the knee-joint. I washed them in new rum, and took a swallow at the same time to keep it from my stomach, and it disappeared. Father says that that summer I began to grow round-shouldered. The next summer I worked in the same neighborhood, and walked home as often. I worked hard through the week, and walked to meeting and home on the Sabbath, making a walk of five miles. The next spring I was sixteen; my stomach weak and my health poor. I overworked myself the next summer, and had the liver complaint in the fall. I then took calomel and blue-pills, after which my health revived; but I was troubled with a cough, if I took a little cold, until I was married and had children. I married in my nineteenth year. I am now thirty-six years old, and have had six feeble, sickly children. They are not healthy till they are weaned and get their teeth; then they

are better. The most of them had a very bad humor when they nursed. It has almost worn my life out to take care of them—they have been sick so much of the time, day and night. The oldest is fifteen, the youngest two years old.

"I have enjoyed better health when I have nursed than at other times. I am always weak, especially after confinement, and never able to sit up all day for three or four weeks. My back is weak, and I am weak all over. Seven years ago my nursing-babe had the canker-rash; my breasts became cankered; I could not heal them up, but weaned my babe. The next babe I had was a terrible source of trouble for six months; my breasts were a raw sore the whole of that time, and my child crying day and night. I tried every thing I heard of to heal them, but to no purpose, until I took iodine to physic my blood, and applied nitrate of silver to my breasts, which healed them up immediately; but in taking the iodine I took too much, and it weakened me very much; but the weakness seemed to settle in my back, and it has never been strong since. I have not been able to go to church but four or five times for three years. Two years ago my last babe was born, and since that time I have remained weaker than before. One year ago this spring my babe had the canker-rash, throat distemper, and fever. The care of him about finished me. The babe being weaned, dried my milk, and I became dizzy-headed, weak and sore across the lower part of my bowels. I could not sit up more than half of the time; could do no kind of work but it hurt the bowels where affected. I could not sleep nights. If I rode or walked out days to take the air, my back ached hard. When I awoke in the morning, I could not bear to have the children walk on the floor, or jar my chair or bed, on account of this tenderness; still I had no bearing-down pain—only a heated, burning tenderness. I took syrup of iron to bring about regularity, and commenced flowing after six weeks, and flowed till I could not rise up in my bed without fainting. I began to sit up after two weeks. I tried to wash a few clothes about three months ago in a cold day, after I had been unwell seven days; I was weak, and it strained the lower part of my bowels. I took a bad cold, and it settled on the back of my neck, and downward under my right shoulder-blade. I packed my shoulders in cold water two nights, which took out the soreness, but left me with a dry, hacking cough, somewhere about my throat; it seems to me that it does not go more

than two or three inches below the hollow of my neck. I do not cough much; sometimes a little once a day, when I am tired or after eating sometimes. When I rise up to dress in the morning, I do not raise any thing—it is nothing but a dry hack. I do not breathe entirely clear sometimes after I eat; if I eat milk it makes me cough a little, but I cannot tell where it originates. I am very weak and low, and if I work half of the time I have to lie in bed the other half. I have no pain in any part of the body—only a weakness in my back. My stomach used to be very weak, and my mouth and gums often very cankery; wind often in my stomach to distress me; but I think my stomach is better than it used to be, or I am so weak below I do not feel it so much. The humor I had in my breast was called the scrofula by an experienced physician. My victuals set well on my stomach if I eat that which is very light. I am lean and bend forward; dark-brown hair and dark skin. One of my sisters lingered with consumption, and died after ten months; another with the hectic, and another has been an invalid for ten years."

COMPLICATION OF DISORDERS FROM HUMOR.

Case IX.

In the following statement the reader will find clear evidence that humor or poison in the blood may give rise to the most annoying, even distressing and protracted disorders of the vital organs, and tend eventually to develop true consumption. It is made by—

Mrs. E. A. P——, of Canton, St. Lawrence Co., N. Y. She wrote me, August, 1856:

"Dr. S. S. Fitch—Dear Sir: Your Medical Exponent I have perused, and have come to the conclusion that I would consult you by letter, giving you a detail of my case. I have been for the last three years troubled with a deranged stomach, spitting up of food after eating, sour stomach. At times I would seem to be better, and then again as bad or worse than ever. Until sixteen months since I was prostrated on a sick-bed. My symptoms were palpitation of the heart; at times my heart would cease to beat, and then commence with a bound; at times a sense of suffocation, and could not at times lie down, but sit bolstered up in bed; coated tongue, loss of appetite, with a great deal of distress and soreness at the stomach, and

costiveness. I employed an apothecary physician five months; during that time I seemed to gain but little. At times I would be a little better, and then worse again. My physician, I suppose, became discouraged—his visits not so frequent—until at length he ceased visiting me. This was in August, 1855. I was at that time able to sit up a great part of the time, and to ride some. I then obtained a syrup of a root-doctor, which relieved some of my complaints. I had before for months been obliged to use a syringe daily to obtain an evacuation of the bowels, as my physician dared not give me physic, it so prostrated me. By this means my bowels became quite regular, but still there remained weakness in my left side, with a dull pain in the region of the heart. I had dyspepsia in its worst form, and could not eat the coarsest food without great distress; every thing taken into the stomach—even a drink of cold water—would sour; and in this condition I remained, feeble and nervous, through the fore part of the winter of 1855 and 1856. I think about January I became so debilitated that I pretty much gave up all hopes of recovery. I, however, began to gain a little, continued to gain slowly through the spring, and have been able to oversee my housework, and do some light work up to the present time. About two weeks since I was taken with a most distressing cough, with soreness of the lungs. I had previously taken no cold that I was aware of. This cough did not abate much for about ten days; during this time I was attacked suddenly with a violent itching, and in the course of a few hours it broke out in blotches from the size of a pin's head to that of a dollar, completely covering the surface. While this lasted, which was about four days, my stomach and side felt better than they had for months. I never experienced any thing of the kind before, and I did not know that I had any humor in my blood. This humor has now all disappeared, and my cough does not trouble me much, except a slight hacking occasionally. For a few days my old symptoms have been growing worse. Having told you what they have been, I will now endeavor to tell you, as plainly as possible, what they now are.

"To-day, whenever I attempt to draw a long breath, it causes a sharp pain in the region of the heart, extending to my shoulder and collar-bone, with a weakness in my left arm. Going up-stairs, or much exercise any way, takes away my strength and breath very much; any sudden emotion will set the heart fluttering rapidly. At

times there is a sudden sensation of an indescribable rotary motion of the heart, as though it turned over. I often awake at night with a sense of suffocation, which causes me to start up suddenly and gasp for breath. I have been wholly unable to obtain any rest on my left side for the past year. At times a dull, heavy pain in the heart or thereabouts, or more generally a weak feeling prevails in my left side, so that when I breathe deep, I often place my hand to my side to support it. Any food, however coarse or adapted to the dyspeptic, or whether partaken of in large or small quantities, sours and causes much distress. My appetite is quite good at present—sometimes none at all. I have also a weak back, with an occasional sensation of heat across the back and hips; often a severe pain in the head, with dots or webs before the sight. I suffer somewhat from the piles. Some days I labor a little. I do not generally lie in bed any more than a well person. I am exceedingly nervous and easily disturbed. And now I have great faith that you can afford the wished-for relief."

This case is curable in every particular.

ASTHMA INDUCED BY THE DRIVING IN OF A SCROFULOUS HUMOR.

Case X.

The patient describes his case here—which is one of severe and protracted asthma—without suspecting the true origin of the disease. Incidentally, however, he discloses it, and we see it to be a humor, which first made its appearance in the form of a swelling under the arm. The case is that of

Mr. J. D——, of Bayham, C. W. He wrote me, December, 1856:

"Dr. S. S. Fitch—Dear Sir: I have been trying to see one of your books, to guide me in giving a proper description of the disease with which I am troubled. Not, however, seeing your book, I hope the following will be satisfactory. It is as I feel.

"I am now about twenty-three years of age. About eight years ago I had a large swelling under my right arm, which continued for about two weeks, and then went away again of its own accord. But I had severe headache, with giddiness; also pain in my right side for about two years after the swelling left me. Then I was taken down with the bilious fever for three months. During six weeks of that

time I was so low that I could not help myself, being so very weak. All the trouble, I thought, was in my right side. The pain was very severe there, and I could not lie on any other part of my body but on my right side, where the pain was. This makes two years and three months. For one year afterwards I continued in a lingering state, still a pain in my side, with giddiness and headache. Then commenced the asthma, the first of which was a stiffness in my right shoulder, with severe pain when I attempted to move my arm. It lasted about a week, shifting from the shoulder to the back of the neck; then left me for a week, came back upon me again for another week in the same manner, and then left me altogether. But the asthma continued, with pain in the side, less or more ever since.

"When the asthma commenced, about four years and nine months ago, I had it about one week in every month, and it has continued increasing ever since until now, which is every week; and the week I have the asthma there are generally three or four nights I cannot lay down in bed. When I cough it seems as if my lungs were closing up my windpipe and choking me altogether.

"I have tried a number of the best local doctors around me. I generally found their medicine do me good for two or three weeks at the first; after that I thought they made me worse, and had to stop taking their medicine. I am a temperate man; but the only or best thing I found to do me any present good, when the asthma was bad, was a glass of strong brandy. I also use tobacco by smoking it; I think it helps me. I have tried to give it up altogether, but I found I could not, on account of the asthma being worse when I did not use it."

Case XI.

Mr. A. McH——, of Cannonsburgh, Mich., wrote me, Feb. 1857:

"Dr. Fitch—Dear Sir: I wish to get your advice on my disease. I have confidence that your remedies with your advice will cure me. Six years ago I was affected with salt-rheum on my hands, and in a year it disappeared; then I felt a pain in the right side, under the last short-rib. On drawing a long breath and when walking fast, I can hear a wheezing in the right lung, which seems to run down as low as the diaphragm, and often I feel a tickling low down in the right side. When I walk very fast, and draw a deeper breath than usual, the tickling produces a hacking cough; and by a great effort

I raise little clots of yellow and greenish-looking matter. Much wheezing; and if I walk fast enough to produce a perspiration, my skin feels prickly. After eating and at night I feel very feverish; at night I am often restless and full of fever; head feels full of blood, with a ringing in my right ear. Often I lay and turn from side to side, and get no sleep all night; and when I rise in the morning I feel all gone, worn out, bad taste in my mouth, a dull, heavy feeling in my head, with no inclination to stir out of the house; and before I rise it seems impossible for me ever to get out of my bed again, so worn out are the powers of the body for the want of a good refreshing sleep, which seems to pull me down the most. After I go out and work a while, I generally feel a little better, and I sit down and eat a hearty breakfast. My appetite is always good, but the food sometimes sours on my stomach; I am costive by spells, when I feel worse; I often have a headache, with dull, drowsy feeling. When I ride horseback, the jolting causes a pain in the right side, under the short-ribs and up midway of the chest, with a sort of dragging-down, as though something was tearing loose, and then the pain is so severe that I can hardly draw a breath. Often I feel no ambition, and no inclination to do any thing; feel as though I wanted to be alone, to sit and think, and I have a great dread. I often wake from a restless sleep in a great fright, and it takes me some time to get righted and find where I am, and that it is all right with me. When I gape the pain catches me under the short-ribs, and it seems as though I could not draw a deep, full breath. I get a breath down as far as the short-rib, and there the pain stops me, and it can go no further down. Five years ago I had the chill-fever, and since then I have never felt well. At that time I felt a ringing in my head, with now and then a spell of ague. I find my constitution failing. I can yet do the work on my farm; but I often feel as though I overdid myself, and then I feel a severe pain between my shoulders. I am five feet eight inches high; thirty-two inches round the waist, two inches above the hips; dark complexion; dark hair; I am twenty-three years old. My mother was affected with salt-rheum, and died of pulmonary consumption at sixty years of age; my father is well—no disease with him; he has a family of ten children, some affected with humors and some healthy; one sister died of consumption. I have a straight form; chest not very full, but not deformed; have no cough, and I think no consumptive symptoms;

sometimes I have spells of strangling, choking, and fainting feelings (they are the worst in the summer), and I feel as though I could not get a breath, and when I wake up I feel scared, as though I was going to die. I have a lonesome feeling, and wish to have some one to speak to, and tell me what has happened, &c. I often have bad dreams, and wake in a great fright. I have had bad teeth for years; some of the back teeth are full of scurvy, and one side is so bad that I cannot make use of it. I have been married one year; no family. Please write to me soon."

Here is presented a complication of disorders, for which no doubt the liver is to a considerable extent responsible. But many are to be attributed to, and all are aggravated by, the salt-rheum poison, which has been repelled from the surface, and fastened on the internal organs.

Case XII.

Mrs. M. D——, of Hayfield, Penn., wrote me, January, 1857:

"Dr. S. S. Fitch—Sir: I have read your 'Guide to Health,' and have made up my mind to address you by letter, trusting to your generosity for counsel and perhaps medicine. My name is Margaret D——; fifty-four years old; residence, Crawford county, Pa.; have been in the habit of sewing; family consumptive; born and brought up in the northern part of York State; lost my husband three years ago; always had delicate nerves; very fleshy; height five feet seven inches; size around the waist, twenty-eight inches; dark-brown hair; complexion light; have suffered much from salt-rheum, but it has entirely disappeared; two years since I had a cough and night-sweats all winter; last winter I had the neuralgia; a lightning pain under my left breast and left shoulder, which prostrated my nervous system very much; last spring it left me, and a distressing cough came in its place, with general debility, same pain in the chest, pain over the eyes, in the cheek-bone, and ears. This cough is not like any other that I ever saw. I do not cough through the day; but when I lie down at night a dry, hard cough begins and continues for some time, and after a few minutes a clear, tough phlegm rises in my throat and comes up without much effort. I then rest till near morning, when I cough again. I work all day; go out when the weather is fine; I have a pretty good appetite, and have gained in flesh since last September. I have not taken apothecary medicine

for a number of years; I generally prepare my own cleansing syrups —made of roots; bowels regular; heart beats too hard sometimes; a little excitement appears to do me good, but too much is bad; sense of smelling impaired."

INSTANCES OF CONGESTIVE CONSUMPTION, ATTENDED WITH BLEEDING, OCCURRING IN THOSE PREDISPOSED TO PHTHISIS.

Case XIII.

The following case presents many interesting features. The patient has detailed the history of his complaint minutely and intelligently. On carefully examining it, it will be observed how the various circumstances and influences to which he was subjected, all tended to kindle the latent consumptive tendency in his constitution into active disease. It is particularly interesting to notice how quickly the lungs were thrown into a congested condition, and bleeding induced by mechanical causes; also how clearly it appears that the blood and fluids of the system are the seat of this something, called a *tendency* or *predisposition* to consumption. The benefit of my recommendations will be seen. The case is that of

Mr. A. N. P——, of Macon, Ga. He wrote me May 20th, 1856:

"I now hasten to lay before you my case, as near as possible. In the first place, I believe that consumption is partially hereditary on my father's side. I do not know that my mother's family were ever subject to it at all. My age is thirty-two last April. I am by occupation a mechanical engineer—residence as above. I was born and lived in the State of Maine until I was about nine years of age; then removed a short distance into New Hampshire; lived in the New England States until I was twenty-one years old, and then came South. I had the whooping-cough at seven or eight years of age, and have always had a cough since, but never suffered any pain from it, unless it was by too much exposure to cold, &c. There was usually a free expectoration with the cough, which remains nearly the same yet. About nine years ago I discovered the mucus to be colored with blood, and felt uneasy about it; but I took some diluted acid a few times, and had no more trouble at that time. I was married soon after. The next year, in assisting to raise a pump out of a well, I lifted pretty hard, and a little after—say five minutes—I

commenced spitting large quantities of fresh frothy blood, but did not experience any further inconvenience from it than a temporary prostration. About a year and a half afterwards, being as rugged as I had ever been in my life, I started over land to California, and was exposed a great deal; I lived on the hardest kind of fare, but never was heartier in my life. I started to come home by Panama, but owing to shortness of supplies, the ship put into a small place in Central America, and thirty of us crossed over, and came out at Belize, British Honduras. Before I could get away from there, I was taken with the bilious fever, and was near dying; but it pleased God to raise me up, sufficient at least for me to take passage for New York, where we arrived about the 20th of June, 1851. When I got to New York I had a seated case of fever and ague, which lasted until frost, and which debilitated me considerably; but my health was tolerably good from that time until a year ago last January, at which time I was much exposed to cold damp air and wind, when I commenced spitting the bloody mucus, and also having pain in my side, soreness, &c. I became uneasy, and quit my job and went home; but was still unable to get rid of the soreness in one of my sides—I believe it was the left. My physician told me that it was a slight case of pneumonia. I did not get rid of the soreness until I used some Croton oil liniment. This took away the soreness; but I still had night-sweats, and expectorated copiously, sometimes of the bloody hue.

"I went on in this way from March until September. Some few times I raised a little fresh blood during this time, but it could generally be traced to over-exertion. I was also troubled with sour stomach, heartburn, &c. But in September a kind gentleman placed in my hands your first edition of 'Six Lectures;' and as soon as I reached home I commenced bathing my chest in salt and water, using the friction, &c. Since that time I have raised but little bloody mucus, and if it occurs at all it is generally when from some cause I neglected the bath, &c., for a day or two. I have very little, if any, night-sweats now; and, by avoiding the more laborious parts, have been able to attend to business ever since I commenced the bathing. I was not disabled entirely before, but the bath certainly was, and still is, a great help to me.

"There was a little circumstance occurred after I had bathed a month or two, which I was particularly anxious to lay before you.

There appeared first a lump or swelling under my left ear, and something inside seemed to become swollen, which I thought might be the tonsil; meantime the left ear was quite sore, and had some itching sensations; and after a week or two the ear commenced discharging matter, and has continued ever since. I have never consulted a physician about it, but rather concluded that it was catarrh, and that it might help my lungs. There are also quite copious discharges from the nose, and frequently are quite bloody."

Case XIV.

Mr. J. Van N——, of Charleston, S. C., wrote me, July, 1856:

"Dr. S. S. Fitch—Dear Sir: My friend P—— (who has been using your remedies for consumption) met me on the 4th inst., and strongly advised me to read your book of 'Lectures,' at the same time offering to loan it to me. I accepted his kind offer, and have carefully read it through, and the result is, I have determined to call on you as soon as I get to New York, which will be near the 1st of August. That you may the more readily understand my case, I will give you a few particulars.

"I was born in New York State, and came to Charleston in the winter of 1850. Previous to coming here, I was of a most robust, hearty constitution; never a pain or an ache—in fact, never knew any but well days. My weight was one hundred and fifty pounds. My second summer here I began to lose my color and flesh, and occasionally was suddenly seized with a tickling sensation in my throat, causing me to cough, and what I raised was blood. I thought nothing of it, for being a hearty eater I supposed it came from my stomach, particularly as I felt no soreness after it. These slight hemorrhages continued, at intervals of three months or more, until July, 1853, when after very severe exertion I raised perhaps a gill of pure blood. The physician pronounced it to be from the lungs; but still I had no cough or other symptoms of consumption, therefore took no medicines. In June, 1855, I was seized with a hemorrhage while feeling perfectly well, and raised in two days nearly three quarts of blood, besides nearly strangling to death, for my mouth could not discharge it fast enough, it poured out of my nose. My physician said 'my lungs were too large for my body, and contained too much blood for the wants of the system,' hence the necessity, I suppose, of a waste-

pump. I bled, and he purged and blistered, and I was soon reduced very much. Now for four weeks I was confined to my room; the first time it had reduced me. In March, 1856, I had another attack, which in spite of medicine and blisters continued without cessation twenty-three days; the discharges growing less the last ten days, until it (the lung) gradually healed up. Now, for the first time, I had a cough, and raised a little every day. The 5th of this month I was again seized, but not having the time to spare to purge and blister, and having read a little in your book, I treated my own case, and stopped the bleeding, without an ugly blister all over my breast 'to draw the inflammation out.'

"My father was first attacked, when about thirty-five years old, with a pain in his side and spitting of blood, and in a few months died. My only sister died with consumption and dropsy combined in her twenty-seventh year. My mother is a strong, healthy woman, and bids fair to live long. I am twenty-eight years of age, five feet six inches high, black hair, hazel eyes, &c. Independent of my lungs, I enjoy perfect freedom from pain. I have every morning a tickling sensation in my throat, causing me to cough; cannot expectorate freely, but feel a tightness across my chest; when I expectorate ever so little I am relieved; what I raise is very yellow, and tastes like the yolk of an egg. My sleep is sweet and refreshing; my appetite poor; weight now one hundred and ten. I don't know the meaning of dyspepsia practically; all I have to do is to eat what I can and forget it; bowels regular; occasionally a slight touch of piles; sometimes a touch of rheumatism. I am married, but unfortunately let my wife go to New York last week. Can't read aloud or sing without coughing. Circumstances not to be mentioned; to say the least, they oblige me to work hard and take active exercise. Teeth very good, but most of them false. All other particulars given when I get to New York. If you can cure me, my friends in Charleston will consider it a pretty fair transaction."

Case XV.

Mr. H. G——, of Hamilton, C. W., wrote me, November, 1856:

"Dr. S. S. Fitch—Sir: To-day I accidentally came across one of your late Almanacs, and after reading a portion of it on 'Consumption,' I have concluded to send for your remedies. I will state my

case. About twelve years ago I was attacked with inflammation on the lungs, from which I partially recovered. About two years after I had another attack, from which I also partially recovered; and from that time, up to the last three years, I was occasionally sick for two or three days at a time, but not seriously so. For about three years past I have enjoyed very good health; but now, and for a short time past, I feel as though there was something wrong with my lungs, and am satisfied that unless I can check or prevent it going further, it must end in consumption. My symptoms are, shortness of breathing, wheezing in the chest, unable to draw a long breath without considerable exertion, contraction of the chest, and a little soreness at the bottom of the lungs, just at the edge of the short-ribs, a slight spitting of blood occasionally, but no bleeding from the lungs, nor any cough whatever. These are the principal symptoms. I of course do not know what remedies to apply for, but leave that with you, supposing you can tell what I want from my symptoms given you."

Case XVI.

Mr. A. P——, of Sandy Creek, N. Y., wrote me, Oct. 1856:

"Dr. S. S. Fitch—Dear Sir: On the recommendation of some of your patients I write you for advice in regard to my health. My business is blacksmithing, and I have worked at it for thirty years. Two years ago about this time I was shoeing horses, and worked very hard. When I got so tired I could not work any longer, I would take a drink of brandy and work on the strength of that until that was gone, and then repeat it again; perhaps from three to four drinks a day for some five weeks. One day I commenced bleeding at the lungs. I probably bled a pint, and the blood clotted in my lung. I commenced coughing, and running down until I became a complete skeleton. I tried all the physicians in this vicinity, but to no purpose; they all gave me up. I would discharge from the lungs more than a quart of blood a day. This clotted blood would come from my lung in large black chunks; it would scent the room so that the people could not stay in it. This lasted nearly two weeks, and then it was not quite so offensive. After the clotted blood got out, there was an abscess formed on the left lung. I became so bad that the neighbors were called in, expecting every five minutes would be the last; but the next morning I began to recover, and in the

course of four months my lung, to all appearance, became sound. I began to flesh up, until I got my usual weight, although I have not had my strength since, though I have been able to work at farming most of the time. This was two years ago. This summer my right lung became affected; it lasted very near all summer. Now it appears well, and the left commenced bleeding two months ago. It discharges some three times a day. I have a spell of coughing in the night, and raise considerable: it lasts from half an hour to an hour, and then I will be quite comfortable. I sweat some nights; through the day I hawk and raise more or less. I am now in a business that agrees with me as well as any thing; as I am out riding most part of the time and in all sorts of weather, but I am careful to keep my feet dry, and also myself. I feel better to be stirring out in the open air than I do to be in the house. I am forty-six years old, have always worked hard, and the neighbors say I have too much ambition. One of your patients says my lungs are similar to what his were. He calls himself a new man, and I know he had an abscess in one of his lungs; I don't see but he now breathes as natural as any one. On my mother's side they are consumptive. I have quite a full chest yet, but I can see it falls in some.

"My brother-in-law has been using your medicine for a year or more. He thinks he is recovering his health; he has stuck to it faithfully for a year; is now able to work, which he has not done in two years before; he has worked two months quite hard, and is still improving."

CASE OF HEPATIC (LIVER) CONSUMPTION.

CASE XVII.

The following case has evidently been obscure to the physicians who have prescribed for it. The primary seat of the difficulty is the liver. The patient indulged his appetite too much, and the liver in consequence became weakened and congested, dyspepsia was induced, and the whole system suffered. This occurring in a constitution where there was a scrofulous disposition, disease begun to be actively developed in the lungs, which would, unless arrested, have ended in consumption. The case is that of

Mr. H. G. C——, of Amherst, N. H. He wrote me, Feb. 1857:

"DR. S. S. FITCH—Dear Sir: I wish to address you in regard to

my health, in compliance with the suggestions contained in recent advertisements of yours, published in the New York Weekly Tribune. My name is Henry G. C——; I am a twin; age, twenty years and eight months; occupation, farming. My address is Amherst, Hillsboro' county, N. H. I was born and have always lived in this place. My father's family were scrofulous; several died of consumption—in some cases attended with throat disease; in some the disease seemed to be rapid, like consumption of the blood, without much cough. I am of rather slender make; my hair and whiskers are dark-brown; eyes, dark-blue; complexion, rather dark; height, five feet eight inches; girth just above the hips, twenty-seven inches—below the arms, three feet. I raise a little loose, yellow phlegm. I am apt to have a roughness and irritability of the throat; cannot use the vocal organs much, at times, without fatigue. I have never considered myself as humory; my mother is much troubled by erysipelas humor in her lower limbs. I was told by a physician last autumn that I had an inward humor. I have sometimes had some slight pimples on the face; my skin on the body is rough—always was, I believe. I have been subject to 'a running at the nose' almost all the time, ever since my remembrance. My digestion has been usually good; have been active, and have been a great eater, though not intending to be gluttonous. I have not felt able to labor hard since the latter part of last September. My appetite has been generally good since then; I have been apt to over-eat, and have not exercised much at times after eating a very full meal. I have sometimes felt a feeling of oppressive fulness; sometimes a dull, heavy pain across the small of the back. I have been called bilious by doctors; I am inclined to be costive, and think that I should suffer considerably from this cause, if I did not adopt a plain, coarse, and chiefly vegetable diet. I have been troubled, at intervals, since the summer of 1853, with a grinding and disagreeable pain in the right side, just above the hips: it is often brought on and aggravated by such work as hoeing, digging potatoes, mowing, pitching, cutting down trees, or any side-trying labor. Since feeling it, my mind and spirits have been much affected; I have been troubled with great depression, melancholy, and confusion, and sometimes I have almost trembled for my sanity. Every thing looks gloomy—I feel no courage. I did not medicate much for these difficulties till last spring, when I got to be nearly sick. I went to a homœopathic practitioner,

who relieved me, but they recurred about the first of last October, since which time I have used various remedies, but without much permanent benefit. I have taken homœopathic drops and powders, one week each; also two quarts of humor syrup, a few doses of liver, anti-bilious, and nervous pills, and two bottles of oxygenated bitters. I have practised some bathing the whole body in cold water mornings, and have sometimes worn a wet cloth on my sides at night. I have not taken much of any other medicine during my life. At present the pain is not confined to the right side; it changes to the left side of my back—it rarely or never aches at both sides at once. Sometimes I have pain across the small of the back. I used to be much troubled with backache when doing stooping work. I am able to walk a mile or two without injury when I feel best; but my strength is much reduced. My blood seems to be poor; I feel the cold sensibly; my feet are inclined to be cold; I feel much better some days than others; at times I feel disinclined to make the least physical exertion; I generally sleep pretty well—am sometimes very sleepy in the evenings. I believe I have stated my symptoms with sufficient particularity. I would like to know your opinion as to the name and nature of my ailment."

CASE OF CONSUMPTION FROM MECHANICAL INJURY.

Case XVIII.

Mr. R. H. P——, of Chaplin, Conn., writes me June, 1856:

"Samuel S. Fitch, A. M., M. D.—Dear Sir: As my health is very bad, and I have some fears of the lungs being affected, by the advice of Mr. J. G. P——, a gentleman who has been under your treatment, I take the liberty to give you a fair statement of my case as I am and have been for some time. I am now in a store most of the time; have sold at auction until I could not speak; then stopped for a time; sold some last winter and spring. I think this has hurt me. Some four years ago I was thrown some distance from the cars against the rocks, in the State of Pennsylvania, and I think I have not recovered from the hurt; I struck on my right shoulder. I discharged a considerable blood at the time from my nose and mouth, and when I had a passage of the bowels blood would attend it. This kept me down for some time. I got some better of that. When I was able to do any thing again, I found that I was troubled with

sharp pains and a hard cough, and sometimes spit some blood. The pain would be sometimes on one side and then on the other, with a dull pain between the shoulders. At the present time my throat is very sore, am quite hoarse, have a very hard cough, and raise a great quantity of yellow, frothy matter when I get through coughing. I am very weak; if I lift any weight, it gives me much pain. As quick exercise puts me out of breath, I feel, as we term it, lazy all the time. I have taken some medicine; the great celebrated Dr. B——, formerly of New York, prescribed for me; also Dr. B——, Dr. O——, and Dr. K——, of Willimantic. Dr. O—— has been my family physician for several years, but I have taken his medicine with but little effect. I am now under Dr. K——'s treatment.

"Mr. P—— placed your books in my hands this morning, and I find in your small pamphlet, headed 'Throat Affections,' what I think hits my case the nearest of any thing that I have seen. My constitution is broken down—it was good; I never had much outdoor exercise; chest, medium size; very stout, not fleshy; measure thirty-seven inches around the waist, thirty-two inches above the hips; my complexion is light; hair and whiskers neither light nor dark; eyes, blue. Our family are subject to the consumption; my grandfather on my mother's side died with it at the age of thirty-four. There were ten children in our family—five dead and five living; two brothers and one sister died with the consumption.

"Dr. O—— is a botanic physician, and very popular. He has spoken of you to me several times, but I thought that I should get well if I took care of myself. There is one thing I omitted to mention; that is, when I choke up nights, before waking, I have horrible dreams; I sometimes think that some one is choking me to death. My height is six feet; weight, one hundred and fifty pounds; large frame."

Here is a strong hereditary tendency to consumption, and in the ordinary course of events, the disease would sooner or later, no doubt, have been developed, unless measures had been taken to prevent it. But it is plain that the injury received from being thrown from the cars had much to do with accelerating the disease. Had this not occurred, many more years of comfortable health might have been enjoyed.

CASES OF POSTHUMOUS CONSUMPTION—OR ABSCESSES IN THE LUNGS.

Case XIX.

Mr. H. H——, of Oberlin, Ohio, writes me February, 1857:

"Dr. S. S. Fitch—Dear Sir: I would embrace the opportunity you so kindly offer of consulting you in regard to using your medicines. I have just commenced using your Anti-bilious Mixture, Pulmonary Balsam, and the Pulmonary Liniment, and think that I have already received some benefit from them. But I presume that I ought to have other remedies, and if you will answer this soon, and state what I shall use and how, I shall be greatly obliged. I will give you, as near as I can, an idea of my condition. I am twenty-eight years of age; reside in Oberlin, Ohio; was born and lived till ten years of age in Connecticut, since then in northern Ohio; no case of consumption in our family as far as I know; all generally robust and healthy. I have previously enjoyed good health. About the middle of last April I was taken down with what my physician called bilious pneumonia, which kept me in bed five weeks. During this time what he called a perennial abscess, or imperfect fistula (it being open only externally), broke out, discharging a good deal for some time, but seemed gradually to heal from the bottom, the discharges gradually diminishing up to the present time. It now discharges but little, and it seems to be of but little depth. I had some cough the latter part of last winter and early part of spring. While I was sick I did not cough much, but on getting up, the cough returned, dry and hacking, though after a while I sometimes raised a little blood. I spent the summer and part of the fall in Connecticut, and regained my strength and flesh in part only. During the fall and winter I have coughed considerable, raising some mucus, and sometimes a little blood mixed with it, but have noticed no blood for near two months past: the mucus is now of a yellowish shade, sometimes bordering upon green. I have had but little pain in the chest; sometimes a lameness in the sides—right side more than the left, and frequently changing from right to left, or from either to the back or right shoulder. I have had considerable pain across the back in the region of the kidneys (urine of red color). I feel it more particularly when frightened, or excited from any cause; feel at such times a kind of general 'goneness,' with violent beating of

the heart, and my heart seems at times to have a kind of a labored, double beating. I have had considerable sickness at stomach, with sourness or acidity, vomiting often, unless very careful what and how much I eat; appetite generally good. In summer, was part of the time quite costive, but more recently bowels most of the time quite loose. I do not have much pain—some days a little, but not generally unless I overload my stomach. My strength is pretty fair yet; I could walk four or five miles without being much tired, if I took it 'cool,' but running up a flight of stairs would put me out of breath somewhat. I have no night-sweats, and have not had, with the exception that when I was sick last spring and about two months ago, I had two or three shakes of the ague then for a few nights, and sweat some."

Case XX.

Mrs. Sarah M. Van V——, of Floyd, N. Y., wrote me April, 1856:

"Dr. Fitch—Dear Sir: I have a brother that was taken about four weeks ago with inflammation on his lungs; the inflammation ran about five days. During that time he had a dry, hacking cough, accompanied at times with an acute pain in the lower part of his right lung. This cough continued about two weeks; then suddenly he commenced raising a yellow, creamy sort of matter. The physician said that an ulcer had broken on the right lung. When taken sick he was from home; he remained about three weeks, and then returned. He had no appetite, and was reduced almost to the weakness of an infant. We called in another physician, who ordered a change of treatment. It is one week to-day since he commenced taking this medicine; he has now a good appetite, sits up through the day, and the cough has nearly subsided, and to all appearances is doing well; but after reading your Lectures we feel anxious for your advice. Accordingly we will answer your questions. He is nineteen, in his twentieth year; has always worked on a farm until the last five months—in this time has been studying dentistry. During this time he has had a stock of cattle to take charge of, which has given him out-door exercise night and morning. He was born and brought up at Trenton, Oneida county; is of rather delicate constitution; height, five feet eight inches; he is slender; is rather lean; stoops a little; chest rather contracted; measures above his hips two feet five inches; hair, dark-brown; eyes, dark-blue; com-

plexion, clear; has a slight headache in the morning; has catarrh in his head; his ribs rise equally when breathing; through his sickness has had night-sweats; no fever; walks in the yard every pleasant day; appetite good; bowels regular; never sick since a child until now; has taken three portions of calomel in this sickness; his voice is good, but if he talks a long time it creates a tickling in his throat; he coughs most at night; circumstances, works for a living."

CASE OF CONGESTIVE CONSUMPTION.

Case XXI.

Mr. J. H. S—— of Peacham, Vt., wrote me, February, 1857

"Dr. S. S. Fitch—Dear Sir: Having for some time been familiar with your name as that of a physician successful in treating diseases of the lungs, I have concluded to apply to you for advice, thinking to procure medicines from your agent in this place. I give you a description of my case. My father and mother are not consumptive, but both are troubled with catarrh. I was born and brought up here; am married; straight, slim, and lean; strong constitution; auburn hair; rather light and freckled complexion. Whether I have asthma, I cannot tell, but leave it to you to say; have had trouble in breathing, at times, for three years, more especially in cold weather, and after exercising in the open air. I have consulted several doctors: one told me it was a slight congestion; another, that it was weakness of the pectoral muscles; another, that it was bronchitis, together with inflammation of the throat and pharynx, and he applied nitrate of silver, with the laryngial syringe, but without effect, as far as difficult breathing was concerned, although it removed a hoarseness, to which I had been subject. I have inflammation and I believe conjestion of the pharynx; am troubled a little with dyspepsia when I eat too much; am at times a little costive; my appetite is good. My chief trouble seems to be to get my breath. I have sometimes slight pains in different parts of my lungs, as much under the breast-bone as anywhere, and they always ache when I have difficulty in breathing. I breathe more freely in the morning than in the after part of the day; Croton oil relieves it for a few days only. I do not breathe very short—believe it is only eighteen times in a minute; but my lungs feel as if they were filled up. For two years I have bathed in cold water nearly every morning, and

for a few weeks I have worn a cloth wet in salt and water during the night. My general health is very good this winter, much better than for the past two years. I have gained ten pounds within three months, and now weigh one hundred and thirty pounds."

Here is congestion of the lungs, not severe, but which would in time, unless relieved, induce tuberculation of the lungs. There is also a catarrhal humor about the throat.

With these few selections from the mass of letters written me by invalids, I must close this chapter, as I could not copy from them at greater length without swelling this volume beyond the limits I have designed. In the extracts given, the reader will find many of the diseases I have mentioned in former pages very clearly described by the patients themselves.

CHAPTER XXVI.

CONSUMPTION CAN BE CURED.

TESTIMONY OF THOSE WHO HAVE BEEN THE SUBJECTS OF DR. FITCH'S TREATMENT.

After having read in the foregoing pages a description of what consumption is—its causes, varieties, symptoms, and complications, with a general view of my mode of treating it—the invalid will perhaps read with interest some additional evidence that, by the treatment I recommend and employ, this dreaded disease may really be cured. Such evidence I propose to give in this chapter, in the testimony of those who have themselves been the subjects of this treatment. I ask the reader to give the following letters a candid and careful perusal. If he will do so, he will, I think, certainly conclude that the persons who wrote them, if they tell the truth, had true pulmonary consumption. That they have been cured, they are living witnesses.

If any doubt is entertained as to the authenticity of these letters, I beg that the writers may be addressed and inquiry made of them. Their names and places of residence are given in full, so that it will require only the trouble of writing a line (inclosing a postage stamp) and depositing it in the mail, to satisfy the skeptical as to whether the letters are genuine. If they are, and the writers have stated only the simple facts, as I know they have, their testimony is of the utmost importance. It settles the vexed question as to the curability of consumption; it does more, it points the consumptive invalid to the system of treatment in which relief may be found.

I am aware that testimonials of cures, given by restored invalids, are often regarded with suspicion; and I am sorry to say that there is not unfrequently good ground for suspicion. It is not a difficult thing to *manufacture* such testimony, and it is too often done; so often, indeed, that no person should rely upon published letters of

"wonderful cures" without investigating their sources and learning for themselves whether or not they are genuine and truthful. But while the sick should guard themselves against imposition in this matter, they should not be so unwise as to reject *all* testimony presented by those who assert they have been cured of dangerous diseases. A single fact outweighs a thousand falsehoods, and we should not throw away the genuine because there are counterfeits. The part of wisdom is to investigate and ascertain for ourselves the truth.

Let me add, that the letters here published were received in the course of a regular correspondence between my patients and myself; but the evidence they contain of the efficiency of the treatment employed is not less valuable on that account. They are of course only a few of the many hundreds of similar ones I have received. I state these facts because I am really desirous that the invalids who shall read this book may be convinced that consumption, as well as the other diseases I have described, can be cured; believing that if I can spread this conviction, I shall contribute much towards alleviating suffering and saving valuable lives. I again commend the following letters to the careful attention of the reader.

CASE XXII.—*Letter from W. H. Bangs, Esq., of Washington, D. C.*

"BANK OF THE METROPOLIS, WASHINGTON, D. C.,
December 10, 1856

"DR. S. S. FITCH, New York:

"My dear Sir,—I hasten to comply with the promise made to you some weeks since, to give you a detailed statement of my case prior to placing myself under your care, with the effect produced upon me subsequently by your course of treatment. This I do the more readily in the hope that some one or more of my fellow-beings who may have been so unfortunate as to make shipwreck of their health, may see in this a beacon light of hope, to cheer, and perchance to rescue them from their perilous condition.

"In March, 1853, after a severe attack of bilious fever, which was followed by a general prostration of my system, I contracted a cold, which, settling upon my lungs, produced the most alarming symptoms of consumption—such as spitting of blood, profuse night-sweats, and a hacking, troublesome cough. My friends were exceedingly anxious that every available means of relief should be resorted to,

and accordingly nothing was left undone which thoughtful care and solicitous kindness could accomplish, aided by professional skill. Under all these appliances my health, as the spring opened, became better, and I buoyed myself up with the hope that, as the summer advanced, I should become quite strong again. This hope remained with me until the latter part of the summer, when, by an unfortunate accident, I was subjected to a severe hemorrhage of the lungs, which prostrated me even more than I had been when first attacked. From this time up to the period when I placed myself under your care, I led a miserable existence—at times sorely perplexed and dispirited, ready to yield to the approach of despair—and then again temporarily relieved, only to find myself again deceived and disappointed in the various means which I resorted to for relief. Among the remedies which claimed my attention, none seemed to offer so great advantages as the popular theory of 'inhalation.' I procured books on the subject, and after entirely perusing them I became convinced that this was the only true method of administering for pulmonary diseases. Alas! this was the greatest *humbug* of them all. Upon submitting myself to the charge of the *great apostle* of inhalation in your city, I was forced to the conclusion, after time and money were both wasted, that however good the system might be in theory, it was certainly villainous in its practice. Finding that it did me more harm than good, I gave it up, determining never to be induced again to experiment in any new doctrine which promises to cure every one by the same course of treatment, no matter how dissimilar their cases might be. Some months after the downfall of inhalation as a specialty, I came across your 'Six Lectures to Consumptives,' and became deeply interested in them, for I thought the arguments there used displayed more sound common sense than I had ever seen before on that subject. The reading of the work kindled anew the flames of hope which had almost died within me, and I determined to write to you, and, if encouraged, to submit my case to you. In the month of March or April of this year I wrote to you, and received an encouraging reply. I then resolved to place myself under your care; and not being able to visit you at that time, wrote you a detailed statement of the symptoms of my case, in answer to which you sent me a box of your medicines, together with a shoulder-brace and supporter, and an inhaling-tube for the purpose of expanding the lungs and filling them with air. Accompanying

these was a letter containing directions for my guidance in the use of the medicines. From the time I commenced the use of these remedies, I commenced to gain flesh, and to feel as I had not done for years. The shoulder-brace and supporter I found every thing you indicated to me they would be. Prior to their use, after a day's writing I would feel so exhausted and weak as to unfit me totally for any kind of out-door service. After using them I ascertained that I could perform the same amount of writing with one-half the fatigue and exhaustion which formerly accompanied me from my place of business. I have now been seven months under your care, and can assure you that during that time my health has been gradually but steadily improving, and I am now in better health, can endure more fatigue, take more exercise, and enjoy life generally, better than I have been permitted to be or to do for many years. I know that, with a system which has been so completely enfeebled and prostrated as mine has been, great care and caution will always be necessary auxiliaries to good health; but with the use of your remedies, both medicinal and mechanical, and a perfect trust in that good and ever kind Providence which has thus far blessed the use of them to my good, I can look forward to the future, if not with positive hope, at least with cheerfulness and contentment. I would not, on any account, be without your shoulder-brace and abdominal supporter and your medicines. I continue to use them, although there is no actual necessity for my doing so. But I shall use them until ordered by you to desist.

"There are many points I might touch on which would more clearly elucidate my case; but I fear I have already tired you, and I will bring my letter to a close, merely adding, that if this communication should reach the eye of any one in doubt on this important subject, and he will address me a line to that effect, it will at all times be a pleasure to me to endeavor to satisfy such an one with regard to the correctness of the foregoing.

"Leaving you the permission to use this letter, or any part of it, in any way which may subserve your purposes,

"I am, my dear sir,

"Very truly yours,

"Wm. Howell Bangs."

CASE XXIII.—*Letter from John Gordon, Esq., of Ottawa, C. E.*

"AYLMER, OTTAWA, C. E., October 20th, 1856.

"DR. S. S. FITCH:

"Dear Sir,—Two years ago I called on you as the bearer of a letter, stating the case of Mrs. Mary Gordon, the wife of my brother, who was then a very distressed and helpless invalid. She had some two months previously been severely sick with a violent attack of erysipelas, which had confined her to the bed for some weeks, and which left her much diseased. She was confined to her house, and could not walk across the floor without assistance. Her whole system seemed to be poisoned. She had great distress, dizziness, and a sense of fullness in the head, pain in the chest and sides—between the shoulders and under the shoulder-blades, with a distressing sinking feeling at the pit of the stomach, with cold chills running down the back and limbs. She had had falling of the womb for seventeen years, which was constantly growing worse. The pain in her head was agonizing, and she and her friends feared at times it would drive her crazy. She availed herself of all the medical advantages which this part of the country affords, but without relief. You prescribed for her and sent her remedies, abdominal supporter and braces, with medicines. They have cured her; she is completely restored to her health, and can now walk twenty miles, if need be. Her case has been considered very remarkable by our neighborhood, and has secured the gratitude of herself, her husband, and friends. Your success in this case has induced many invalids in the vicinity to apply to you with various complaints, and almost uniformly they have been helped. Some of your cures in these cases have been wonderful. I cannot do less than recommend the sick everywhere to avail themselves of your admirable treatment, confident as I am that it is best adapted of any that is practised to restore the invalid to health. Among those who have used your remedies with benefit I may mention Miss Kellogg, whose left lung her doctor here said was gone: she is well; also Mrs. Chamberline and Mr. James Reid. Mr. Reid was far gone in consumption, and is now very much improved. I could name others, but forbear.

"Trusting that your remedies may be as effective in curing others,

"I am respectfully yours,

"JOHN GORDON, High Constable,

"District of Ottawa, C. E."

CASE XXIV.—*Letter from Dustin E. Kimbel, Esq., of Newark, Vt.*

"NEWARK, CALEDONIA CO., VT., January 1, 1855.

"DR. S. S. FITCH:

"Dear Sir,—On the 7th day of June last I wrote you, describing to you my condition, and have since been using the remedies which you then prescribed for and gave me. I had then been out of health some six months. I had a hacking cough, severe pain in the chest and sides, also between the shoulders and under the shoulder-blades. My breath was short and oppressed, and I had daily a fever, and at night severe sweats. I was first attacked with inflammation of the right lung, which resulted in what you doctors call a partial hepatizing of the lungs. I had the advice and assistance of several physicians both in Boston and this place, which were of no benefit to me. I was told by two physicians that I probably had tubercles formed in the lungs, and if so I must die—nobody could save me. I was a very sick man at all events. As I said, I applied to you in June last for help in this condition, and I got help. I improved gradually under your admirable treatment, and am now nearly a well man. I have been relieved in a great measure of my cough, have no fever or night-sweats; all alarming symptoms have disappeared. I have recovered my wonted flesh and strength, and I am sure that I owe my life to your treatment and advice. You may be sure I feel grateful. If any please to write me at this place, I will, I think, convince them that this statement is strictly true.

"Yours, &c.,

"DUSTIN E. KIMBEL."

CASE XXV.—*Letter from Mrs. Martha L. Bradeen, of Wilton, Vt.*

"DR. S. S. FITCH:

"Dear Sir,—Yours of November 18th was received, together with the box of medicine. You will recollect, when I wrote you last, that three of my children had the whooping-cough. I deferred writing until I saw what effect the medicine had. I began giving them the Expectorant as directed. I could see, before they had taken it but a day or two, that their cough was better. At the end of five weeks their cough was almost well. I let one of my neigh-

bors have a bottle. She says it is the best medicine they ever had for a cough. With regard to my own health, it is pretty good now, although my cough was worse all the while my children had the whooping-cough. You wished me to write a statement of my case, if it would be agreeable to me. Most assuredly I consider it both a duty and a privilege, especially if by so doing it would benefit any one suffering from lung disease. When I first wrote to you in April, 1856, I had felt that my health was gradually failing, though for the most part of the time I kept about the house and did considerable work. I had a severe pain in my side, extreme soreness in the chest, together with a very bad cough; my feet and legs very cold. I could not walk but a short distance without being completely exhausted. I was troubled with the palpitation of the heart, and pain about my shoulders and through my shoulder-blades. My friends were quite alarmed at my symptoms. I might here add that I had the lung fever in November, 1850, and have had a cough every winter since for the last two years; the last six months excepted, I had not been free from a cough at all. Consumption is hereditary on my father's side; he and my mother both died with consumption and three brothers and two sisters, besides a number of cousins and other relatives, have died with pulmonary consumption. When I wrote to you, my physician said to me, 'Mrs. Bradeen, all the doctors in the world cannot cure you.' I had read your Lectures, and was determined to try your remedies. It is about eight months since I began to use your medicines and mechanical remedies. I feel as well nearly as ever I did; have not the least pain anywhere, and eat and sleep well. I can walk up stairs without difficulty of breathing, and do not cough much unless I take cold. I have the catarrh in my head some. I have the fullest faith in your remedies, and do not think it safe for me to be without your medicines for fear of a relapse. By the way, I cannot speak too highly of your supporter and shoulder-braces; it seems as though I could not go without them a day. I have written a true statement of my case, with full liberty to publish it. Respectfully yours,

"MARTHA L. BRADEEN."

An instance of stronger hereditary tendency to consumption could not well be presented. The powerfully controlling influence of the treatment is shown in arresting this tendency and holding it in check.

CASE XXVI.—*Letter from Mrs. Ann A. Cole, of West Derby, Vt.*

"WEST DERBY, VT., October 9, 1856.

"DR. S. S. FITCH:

"Dear Sir,—In May, 1853, I applied to you as an invalid, after an illness of three or four years, without aid from any one, although I had employed good physicians. I had a very bad cough, of several years' standing, commencing when I had measles. I had raised blood many times, and much of it, with distress at the stomach, and also a burning in my chest as if heated by a furnace; much headache, almost incessant palpitation of my heart, and of course a full measure of alarm to my family. I had great pain about my chest, sides, and back, with excessive costiveness. At this time, when all despaired of my recovery, I wrote to you. The result of your medical treatment was a full restoration to health; and now, when free from cold, I enjoy excellent health. My recovery is considered almost a miracle among my acquaintances. Please accept my best thanks. Respectfully yours,

"ANN A. COLE."

CASE XXVII.—*Letter from R. F. Nelles, of Galt, C. W.*

"CUSTOMS, GALT, C. W., October 20, 1856.

"DR. S. S. FITCH:

"My dear Sir,—I only received yours of the 4th instant yesterday, and have much pleasure in testifying to the benefit I derived from your medicine and advice.

"In June of last year I called upon you for advice, having been previously pronounced incurable by many eminent physicians in Canada. After an examination, you told me that you could cure me in two months. I then called on Dr. —— of your city, who examined me, but told me the very reverse from what you said—that nothing could save me from an early grave. He said that he might be able to relieve me a little, but said he could give me no encouragement—that my case was hopeless.

"After a night's reflection I made up my mind to place myself in your care, but with scarcely a hope that you could cure me. All I have to say is this, that your words in my case have been verified. I was in a very weak state when I went to you; given up by several

physicians—amongst the rest, Dr. H——. I took your medicine, followed your advice, and am now, thank God, as strong and healthy as ever.

"I attribute my recovery, under God's blessing, to your agency.

"I sent you a patient last spring from Grimsby, C. W.—a Mr. Pettit, who is improving slowly; and I shall, whenever I find any one afflicted as I was, use every endeavor to send them to you.

"Mrs. Munro is much obliged for your kindness to her when in New York. She has returned with her son-in-law; but, poor fellow, he is very low.

"If I can at any time further your interests, I will willingly do so.

"With most sincere respect,

"I remain yours faithfully,

"R. F. Nelles."

Case XXVIII.—*Letter from Mrs. Gertrude D. L. Montanye, of Shandakin, N. Y.*

"Shandakin, Ulster Co., N. Y., January 29, 1857.

"Dr. S. S. Fitch:

"Sir,—Two years ago last month I was attacked with hemorrhage of the lungs, and raised from three to four quarts of fresh blood in one week, which prostrated me so that I was obliged to be lifted out and in my bed. Under the care of a neighboring physician I recovered so as to be able to be up and around during the winter, but was unable to do any thing worth mentioning, and continued to spit a little blood, accompanied with a great deal of pain in my side and a severe cough. In the spring I had another severe attack, which again brought me down to my bed. I applied to various physicians—all of whom afforded me only temporary relief. I was then recommended by the Rev. H. C. Longyear to write to you and procure your remedies—he having previously derived benefit from your treatment—and which I was at length induced to do, but not before I had again had an attack of it in the fall. On receiving my letter stating my case to you, you immediately forwarded your medicines, together with your other remedies, which I received in January (that is one year ago this month), and which I immediately commenced using. My health gradually improved under your treatment, though I had a slight attack of hemorrhage in the spring; but that I think

came from overdoing myself. Since then I have been slowly improving, and am now enjoying better health than I or my friends ever thought I would again. If this simple statement of my case and the benefit derived, by the blessing of God, from your treatment, will be of any service to you, or induce others to put themselves under your treatment, I shall be very glad. Yours respectfully,

"GERTRUDE D. L. MONTANYE.

"P. S. You are at liberty to arrange these facts to your own taste; and, indeed, if you publish them, I should be glad to have you do so. Yours, G. D. L. M."

CASE XXIX.—*Letter from Rev. H. C. Longyear, Esq., of Phœnicia, N. Y.*

"PHŒNICIA, ULSTER CO., N. Y., Feb. 9th, 1857.

"DR. S. S. FITCH:

"Dear Sir,—With pleasure I pen these lines to inform you of the result of my application to you for medical aid, at a time when I was fearful that consumption would soon end my earthly career.

"From my infancy to the age of twenty-two years, I was the subject of repeated attacks of inflammation of the lungs, a seated cough, and profuse expectoration. Finally, I may say that I was almost always sick; to say the least, my health was so delicate that I was not able to do much at school nor on the farm, for every little cold or over-exertion would bring on cold chills, a stoppage of expectoration, and finally a burning fever.

"In the month of June, 1848, I was brought very low by an attack of pleurisy and inflammation of the lungs, and was attended by a physician of the regular allopathic school, who, I suppose, treated me according to the usual manner, until I got up from my bed. But still I remained quite feeble for more than two months. I was troubled with pain in my side, shortness of breath, and a sinking, all-gone feeling at the lower part of my chest. From time to time I inquired of my physician whether he could not give me something to strengthen me. At this period I was advised by the Rev. A. L. Freeman (then a student at Madison University) to read your Lectures, which I did as soon as I could procure them. Upon reading your views of consumption and diseases of the lungs, my almost expiring hope revived. I visited you at your residence in New York,

in October, 1848. You examined me, and said you did not think I had consumption, but (if I remember right) a humor on the air-passages of the lungs. You told me you thought I would soon get along, with the faithful application of your remedies.

"I commenced about the 15th of October, and in about a month or a month and a half I enjoyed better health than I ever had before; and the following winter I was able to be out in the severest cold weather with men of the strongest constitutions. This was contrary to your orders; for you told me when I felt better to be very careful until I was sure I was sound; but contrary to this, I was very careless and exposed myself very much. It was the opinion of my wife and myself, that if I had followed your orders I should have been cured of my long-standing cough before spring. I have enjoyed quite comfortable health ever since—so much better than I did before, that I know that I cannot be grateful enough to God for the bestowal of health to such a good degree. For the past five years I have been trying to preach the everlasting gospel, and have often exercised my lungs very much, and find them still as strong, if not stronger, than they were six years ago. Finally, I have the strongest confidence in your ability to treat all kinds of chronic diseases with success.

"Praying that the Lord may grant you a long life of usefulness and a happy death, with an abundant entrance into the kingdom of glory, I remain your friend and brother in the Lord,

"H. C. LONGYEAR."

CASE XXX.—*Letter from Mr. Geo. C. Ball, of Michigan City, Mich.*

"MICHIGAN CITY, November 7th, 1856.

"DR. S. S. FITCH:

"Dear Doctor,—It is with pleasure that I assume the present opportunity of addressing you respecting my health at the present time. One year ago from this date I went to see you at 714 Broadway, New York, in a very feeble state of health—feeling weak and trembling all over, pain around and between the shoulders, in the left breast, very difficult breathing, the air did not enter freely in the left lung, and feeling, when breathing damp air, a heavy, clogged sensation in the throat and at the junction of the pulmonary tubes with the trachea—having suffocating feelings when breathing hot or

rarefied air, and often being waked up nights by smothering feelings; night-sweats, dyspepsia, bleeding lungs, irregular pulsation, catarrh, weak back, rush of blood to the head, and the spermatorrhœa for one year—its cause for five, with three years leading to the cause. In fact, my whole system was completely out of order—every organ was either enfeebled or diseased, and it had been working on me for no less than five years; and now, through a judicious and constant use of your remedies, I am enjoying fair health, and am fast progressing on to a perfect restoration of health, which awaits a faithful invalid's compliance to your prescriptions.

"Let me add, that consumptives should be encouraged to persevere with their medicines, although they may not at once seem to confer benefit. When I first commenced taking your remedies and following your advice, I felt weaker than what I did previously, and continued to do so for the space of three or four weeks; then, however, my strength began to return very gradually, but was interrupted often by those depressed and trembling feelings; and in this way I continued to improve, by being a little better after those poor days than before them. Now, if I had left off your medicines at that period when I felt or experienced the greatest weakness, no doubt I would not now have been in the land of the living, for that weakness was the very critical period in which the conflict between the disease and medicines occurred; and the remedies have completely triumphed over it so far as to allow me to enjoy fair health now, and am able to take plenty of exercise without any notable fatigue. I would say to all consumptives, to follow up all Dr. Fitch's prescriptions faithfully, judiciously, and perseveringly, as it is, I believe, the only road that leads to a permanent cure of consumption. Patients are very apt to think that they ought to improve in a few days.

"For myself, I will say that I had many ups and downs whilst using them, and came very nigh giving up three or four times, believing that my case was incurable. What prompted me to think that my case was incurable, was that five of our family died of this disease in five years' time. The first death occurred on the 11th of October, 1850—that of my brother. He was a strong and healthy young man. On the following 3d of August, 1851, my mother died of the same. One year from the following March 17th, the strongest and healthiest brother died. On the following June the 8th, 1853, a sister died of the same; and on the 28th of September,

1855, my father died; at which time I was fearfully attacked with the same awful disease; but by a judicious, persevering, and faithful use of your remedies, I am now, through the blessing of God, permitted again to enjoy fair health, and am still improving.

"Respectfully yours,

"Geo. C. Ball,

"Late of Thorold, C. W."

Case XXXI.—*Letter from C. De Revere, Esq., of Tarrytown, N. Y.*

"Tarrytown, N. Y., March 10, 1854.

"Dr. S. S. Fitch:

"Dear Sir,—I feel it to be a duty I owe to yourself and the community, to make a public acknowledgment of the fact that, under your treatment, by the blessing of God, I have been restored to comfortable health, after going down to the very borders of the grave with true *pulmonary consumption.*

"As I am informed by physicians, it is nearly or quite impossible to determine, with absolute certainty, that any individual now in health ever had true consumption; that although consumption may be curable, still the fact of such cure can only be established by a post-mortem examination of the lungs. This may in most cases be true; but it is not in my case, as the circumstances which I will relate conclusively show.

"Disease first began to develop itself in my lungs in 1842, by a cough, and the usually attending symptoms of decline in strength and flesh, pain about the region of the chest, through the shoulders, and under the shoulder-blades. The disease continued slowly, but steadily and obstinately, to progress. The best medical advice and assistance I could get appeared to oppose no check to it. By the year 1845 I had become very feeble, coughed much, expectorated largely, with all the ordinary indications of diseased and wasting lungs. During the last-named year a new feature presented itself: a large abscess gathered in the left side and broke, discharging a great quantity of thick matter, resembling very much that which I coughed up. This discharge continued until I called on you in 1847. *It proved to proceed from a cavity in the lungs.* Ulcerous and tuberculous cheesy matter was discharged; but what showed conclusively that the opening was into the substance of the lungs was, that the

air passed out from the lungs through the abscess. *I could and did frequently blow out a lighted candle* by placing it before the opening, and making a sudden effort at expiration. Here was positive proof that extensive ulceration, involving the substance of the lungs, was going on. All my symptoms indicated consumption—cough, expectoration, great debility and emaciation, distress for breath, hectic fever, night-sweats, &c. My friends and my physicians regarded me as certainly doomed to the grave, by the disease which was on me, as though I had been already in my coffin.

"This was my apparently hopeless condition when, in January, 1847, I most fortunately applied to you. I did so with very little hope of relief. You yourself did not express a very confident hope that you could rescue me from the grasp of a disease so firmly fastened, but still encouraged me by saying that you thought it *possible* I might be cured if I adopted and faithfully pursued your treatment. I did so, and, with gratitude to God for his blessing upon the means you employed, and with gratitude to you for your skill and kindness in treating me, I can say that I have been in the enjoyment of good health for the last four or five years. I pursue my ordinary business, have no cough, no pain, have my usual flesh, and nearly my usual strength. I do not suppose that I am as strong as I would be with lungs that had never been diseased. The front lobe of the left lung is nearly all gone.

"My case may appear almost incredible to those who regard seated consumption as incurable. But if the skeptical will write or call on me at Tarrytown, N. Y., I can, I think, convince them that at least one such case has been cured by your admirable treatment. With the sincere wish that others similarly afflicted may apply to you and find relief,

"I am most gratefully yours,

"Cornelius De Revere."

Case XXXII.—*Letter from Miss Jane Gray, of Brooklyn, N. Y.*

"No. 6 Prince-street, Brooklyn, N. Y., Sept. 9, 1856.

"Dr. S. S. Fitch:

"Dear Sir,—I feel that I owe a debt of gratitude to you for the health I now enjoy, which I ought sooner to have acknowledged. In 1850, when I applied to you, I was not expected to live. I had

had a bad cough some two years, and for several months had not been able to leave my room. My physician told me my lungs were seriously affected, and that he could do nothing for me. I was very much emaciated, had bled several times from the lungs, suffered much pain in the chest and under the shoulders, had fever and chills daily, and most profuse night-sweats. My strength was so far gone that I could not walk across the floor without two persons supporting me. I expectorated profusely, and suffered great distress for breath. This had been my condition for over eleven months, and constantly sinking. I was lifted into an easy carriage when I visited you. I had no hope at all myself, nor had my friends, that I could possibly survive long, for I had all the symptoms of true consumption far advanced. You encouraged me to hope, and I now have reason to be thankful that I was induced to put myself under your treatment. I made rapid improvement after the first week or ten days, and in five weeks I was able to walk a block. This improvement steadily continued, until at the expiration of about a year my health was quite recovered, and I have since remained well. It is now perfectly good, and my lungs are strong and sound. I feel that under a kind Providence I owe my life and my present good health to you. If there are any who need the aid which I received, and doubt the truth of these statements, for the sake of the suffering I will cheerfully reply to their inquiries. With most heartfelt thanks for the benefit I have received, I am

"Respectfully yours,

"Miss Jane Gray."

Case XXXIII.—*Letter from W. A. Hillyer, Esq., of New York City.*

"New York City, November 15, 1854.

"Dr. S. S. Fitch:

"Dear Sir,—When a man feels that he owes his life to another, time only increases his admiration and strengthens his gratitude. This is the feeling I have towards you. In April, 1852, I was attacked with repeated and violent hemorrhages from my lungs, accompanied with much cough, soreness of the throat, &c. I also experienced great tightness and shrinking of my chest, short breathing, and nearly all of the most alarming symptoms of consumption. My nearest friends viewed my case as exceedingly critical and dan-

gerous. I applied at once to you, without endangering myself by any other advice. The result was a perfect and permanent cure. Your medicines, mechanical remedies, and inhalation, without reducing me, or disturbing in any manner my appetite, or even interrupting my professional employment, and without any shock or violence, gently led me back to health. I have witnessed many other cases of consumption cured by you. In your hands medicine seems one of the exact sciences. In the whole course of my life I have never met a physician whose prescriptions and medicines seem so unerringly certain to cure. I most cheerfully give you leave to use my name, and refer any person to me who may wish further information.

"Believe me ever yours,

"W. A. HILLYER,

"Attorney at Law, No. 27 William-st., N. Y., house No. 69 Nassau-st., Brooklyn."

CASE XXXIV.—*Letter from Mrs. Annie P. Davis, of Berlin Centre, Ohio.*

"BERLIN CENTRE, MAHONING CO., OHIO, January 16, 1857.

"DR. S. S. FITCH:

"Sir,—Having been desirous for a great while to express my gratitude to my greatest earthly benefactor for the great benefit I have derived from his medical skill and remedies, I take the present opportunity of doing so. But language would fail to express adequately my gratitude to you. I was a miserable invalid for two years previous to consulting you; mental and physical powers a perfect wreck; suffered much, enjoyed but little; every thing tired me; could converse but little; reading tired me; listening and conversation tired me;—in fact, I was tired of myself. When in health, I enjoyed a constant flow of spirits: (what a contrast!) Health gone, I had ceased to interest any one, and often felt that for me it were better to depart; yet there were ties to hold me to earth. I had two daughters that needed a mother's counsel. I remembered that I was left motherless at the age of three years, and had experienced an orphan's bitterness. When I remembered these things I felt a clinging to earth.

"I was advised by a friend to consult you, and finally prevailed on

my husband to lay my case before you; which I presume seemed like a waste of words and material to him, for rumor said I must soon die. I had been constantly treated for two years for lung affection or dropsy, or something else; but the relief afforded from the use of anodynes was of short duration, and seemed to greatly excite the nervous system.

"And when we received an answer from you, in which you stated that you hoped to be the means under God of my recovery, I felt to thank God and take courage; for they that put their trust in God shall be blessed in their deeds.

"Your medicines were received in due time, and were taken according to directions (taking at first the smallest doses marked on the bottle), with a daily sponge-bath; and am happy to state to you that I have attained all you promised—comfortable health—but not enduring strength. Where there was a general debility of the system, there is now a general tendency to health. The effects of your different remedies seem in perfect harmony with the system. There is no tearing down to build up, but under their influence the general strength is revived and the enfeebled body restored to health. I am almost a wonder to myself and friends. No one that saw me while an invalid thought I could live very long; but, thanks to the Author of all good and your skilful treatment, I can oversee my household affairs, enjoy society, ride on horseback, and walk short distances. Your mechanical treatment constantly answers every purpose for which it was intended. Yours with great respect,

"Annie P. Davis."

Case XXXV.—*Letter from Mrs. Lucretia Louis, of Jeffersonville, Ind.*

"Jeffersonville, Indiana, Oct. 22, 1854.

"Dr. Fitch:

"Dear Sir,—Permit me at this time to address a few lines to you, although it has never been my privilege to see you. Is it strange that I feel great respect for one who has been the means in the hands of God of relieving me of such bodily infirmities! In the year 1826 my health and strength began to fail. My complaint was general debility and a derangement of the nervous system. I was doctored by several physicians, but they made my case worse instead of

better. In 1828 I began to lose my voice, but with great exertion continued to speak a little for the space of six months, when I became entirely speechless. Such a case (the doctors said) was never known, and what to do they knew not. They finally resorted to calomel, and made a cripple of me for the space of four years. My sufferings while in that condition I will not attempt to describe. I obtained temporary relief; but found no cure for all my maladies until I applied to you, by letter, for advice last spring. I was then speechless, and coughing almost incessantly day and night, with short breathing and pain in the left shoulder. I commenced using your remedies and following strictly your advice, and was soon relieved of my cough. Your medicines, with the cold salt-water bath, appeared to regulate and strengthen the system; and the result is—my voice is perfectly restored, and I am entirely free from bad feelings which had never left me for one hour in the last twenty-six years. You have done for me what a number of physicians in five different States had tried to do, but failed of success: their skill was baffled. I have lived a mute for more than twenty-five years, but for the last two months have been able to talk and sing, like I was wont to do in the days of my youth. My health is good. I have nothing to complain of but a broken constitution. Accept my thanks, and ever believe me,

"Very truly yours,

"Mrs. Lucretia Louis."

Case XXXVI.—*Letter from Mr. Jno. Patton, of Medina, Ohio.*

"Medina, Medina Co., Ohio, Aug. 26, 1854.

"Dr. S. S. Fitch:

"Dear Sir,—I furnish you the following statement with pleasure, as after being raised by your instrumentality from a disease of which I never expected to recover, and continuing the use of your remedies in preference to all others, my confidence in them is such that I can most cordially recommend them as being, with the Divine blessing, most likely to benefit those afflicted with pulmonary disease.

"My constitution is not naturally vigorous, yet I have enjoyed moderate health until August, 1851, when I observed a degree of pain in the upper part of my lungs and throat, that affected me in

speaking, and my strength appeared to be failing. Soon a cough, at first slight, increased steadily until October 1st, when I laid aside my avocation (colportage) for a time, hoping that it would give way soon under the influence of cod-liver oil, which was thought to have been of some benefit in a case where the person ultimately died of consumption. I used it freely, but found, week succeeding week, my cough steadily increasing and my strength as steadily declining.

"After several weeks I abandoned the use of the oil, and resorted to other remedies highly recommended, but with no better effect; so that my friends, I believe, generally considered me as beyond recovery. Although in any other disease I should have resorted to a physician, I had seen so many cases of this disease baffle the most skilful physicians, that I had no hope of receiving substantial benefit from them, although the friendly suggestions of one in our vicinity afforded me relief in some respects. In February I was so reduced as to be obliged to spend most of the day in a reclining position, whilst I expectorated large quantities of thick, corrupt matter, tinged considerably with blood, and had two or three slight attacks of spitting blood. Cod-liver oil and phosphate of lime at this period checked the disease, but soon lost their effect; and my experience in the use of cod-liver oil accords fully with your views as given in your Lectures. The reading of this work was highly beneficial to me. After lingering during the summer of 1852 with the changeable and often flattering symptoms frequently experienced by others, I procured a bottle of "pulmonary balsam" and one of "heart corrector" in Medina, and derived much benefit from their use, and during the winter I entertained brighter hope. But I could obtain no more of your remedies, and spring did not confirm my hopes. Early in June an attack of bleeding so reduced me that there appeared scarcely any ground of encouragement left.

"In August I concluded to apply to you by letter, as my last earthly refuge; and in October received a box of your medicines and inhaling-tube, shoulder-braces and supporter, and soon found myself steadily recovering; and during the winter my health improved so much, that last spring I offered my services to the Publication Board, for which I had labored before, hoping that riding in the open air would be conducive to my further recovery. This hope I have realized in a good degree, and have labored with short inter-

vals the entire summer. During the past hot weather I sustained some injury, but hope that it will not be permanent.

"Your inhaling-tube and supporter and shoulder-braces I found essential, and continue their use, having but little hope of seeing consumption cured without their invaluable aid.

"With gratitude and respect, I ever remain

"Yours truly,

"JNO. PATTON."

CASE XXXVII.—*Letter from Mr. Thomas Briggs, of Erin, C. W.*

"ERIN, WELLINGTON CO., C. W., August 13th, 1855.

"DR. S. S. FITCH:

"Dear Sir,—I take this opportunity to address you a few lines expressive of the satisfaction I experienced in regard to your treatment of my case. As you may remember, I first applied to you about the 28th of August, 1854. I had been previously afflicted in the summer season for eight years, as I was exposed to two very severe storms on the 20th of June, 1846. From that time up to the time I consulted you by letter, I had taken several different kinds of medicines, some of which afforded temporary relief. I was afflicted in the manner following, viz.—with a sharp, sometimes excruciating pain about the kidneys and hips, a severe pain all over the chest, shooting to between the shoulder-blades many times like a dagger, and reverting to my back; and on heavy breathing, a great feeling of soreness all over the top of my chest, with severe sneezing and great discharge of catarrh from my nose, fever in the morning, night-sweats, chills, periodical sick stomach, asthma; and, to crown all, a severe, hard, dry cough, of twenty-seven years' standing. I coughed some nights until near morning. In this condition I consulted three physicians, who said I might be cured; took all the medicines they gave me, and I getting worse all the time. At last they said all the medicines in the world would not cure me. In this forlorn condition I was given up to linger and die. However, just at this time your Almanac was put into my hands, and I read and believed there was help for me yet. This was the first time your name was heard by me. When I wrote you, you said you thought I might be fully restored to health. I commenced using your remedies and medicines on the 6th of October, and in about one week I began to feel some-

what better; and as I had not been able to labor since the 24th of May, 1854, and kept gaining in strength, about the 1st of December I began to do light work; and now I can bless God that I am once more able to resume my daily labor, and have done so since December last; and I can now say that I enjoy good health, dear sir, through God; you have been the instrument in God's hands. I still use the tubes, braces, and supporters, of which I feel I would never be without. Accept my kindest love and respect.

"Yours with much regard,

"THOMAS BRIGGS."

CASE XXXVIII.—*Letter from Rev. H. W. Baker, of York, Mich.*

"YORK, MICH., March 10th, 1855.

"DR. S. S. FITCH:

"Dear Sir,—Gratitude to you and the Giver of all good, should have prompted me to have written to you before, which I have often intended to do, but as yet have failed to accomplish my intention, for which I have continually reproached myself.

"Some seven years since my wife was attacked with a severe lung fever, which resulted in a gathering of and breaking of several ulcers upon the right lobe of her lungs; when it was thought by all (even by her physician) that she could not long survive. By the counsel and consent of friends, together with her physician, we were induced to make application to you for advice and medicine. By the use of the inhaling-tube, supporter, and braces, together with medicines you furnished, she soon began to amend, and in less than four months had expanded her chest some two or three inches more than her usual measurement, and was obliged to rip the lining of her dresses which she had formerly worn with ease. She has been able to labor hard most of the time since, and has given birth to three children. Last fall she was attacked with a severe cough, and it was attended with soreness through the chest generally. She would have paroxysms of coughing for an hour or more every morning, and frequently through the day. She sent to you by her brother at Knowlton for advice and medicine; and that which you sent worked like a charm, causing her cough measurably to subside within three or four days. The medicine which you sent my daughter at the same

time had the desired effect, restoring her to the enjoyment of good health. Yours respectfully,

"H. W. Baker."

Case XXXIX.—*Letter from Mrs. T. E. Cadwell, of Saratoga county, N. Y.*

"Moreau Station, Saratoga Co., N. Y., Oct. 11, 1856.

"Dr. S. S. Fitch:

"Dear Sir,—I desire to give a history of my case. I am under your treatment. It is now nearly a year since I first saw you in your office on Broadway, and my condition was then a most pitiable one, for I was obliged to be carried about like a child, being entirely unable to walk, and able to ride only with great pain and weariness. After an examination of my lungs you pronounced them in a state of ulceration, as I had raised blood, coughed, had chills, fever, and sweating, with pains about the chest, side, and shoulder-blades. I also had spinal disease of nearly five years' standing—my spine being so badly curved, and being so weak, painful, and numb, that I had walked but a few steps for the previous eight months, and had been many weeks of that time unable to turn over in bed. I had a tumor in my left side, or rather inside the hip-bone, which you pronounced an ovarian tumor. You said you thought no medicine would reach that, as it had been growing for more than eighteen months—that you feared it might cause my death. In fact, you gave me but little encouragement, for you said my recovery depended much upon the tumor, which was the most critical of my many diseases.

"I had doctored much, having employed five physicians in six years, taken *cod-liver oil* all one summer when given up by my attending physician, worn Dr. ——'s Galvanic Belt and used his Magnetic Fluid, and all without permanent relief. For three springs before I saw you, I was brought upon my bed with lung disease and weakness (having also most terrible female weakness), and have been given up by my friends. I lost all hope of being any better; and when I went to you it was without much faith, and I resolved if your remedies did not help me, I would never take medicine again or consult another physician. You gave me an abdominal supporter and also shoulder-braces, with a box of medicines with directions for use, which I commenced using; also bathing in tepid water every morn-

ing. In a few weeks I became a little stronger, and was at length enabled to walk across my room alone, though I do not believe I should have ever walked again had it not been for your supporter, which seemed of more value than any medicine. Since adopting your braces my chest has enlarged three inches. I take deep, full breaths, do not cough but very little, do not raise such very bad matter as formerly, nor so much of it; *my tumor has entirely disappeared*, and my back is much stronger than I had ever thought it could be, as I have walked a quarter of a mile nearly every day this summer by stopping to rest frequently, and could ride three or four miles without very great fatigue. There is no doubt but that your medicines have done all this for me, under God's blessing, and I cannot but thank Him for directing me to you, to whom I offer the most heartfelt gratitude. Your remedies have done so much, it really seems as though they would ultimately cure me, which perhaps they will yet do, though my health is now equal to my former most sanguine hopes.

"You are at liberty to use any or all of the above for the benefit of those similarly affected. I believe I am *a walking advertisement* of the efficacy of your medicines; and people who saw me before I came under your treatment ask, 'Have you used no medicine but Dr. Fitch's?' and as the invariable answer is 'No,' the remark follows, 'Well, I did not suppose you would or could live till this time.'

Yours respectfully,

"Mrs. T. E. Cadwell."

Case XL.—*Letter from A. H. Rock, of Winton, Iowa.*

"Winton, Benton Co., Iowa, March 7th, 1856.

"Dr. S. S. Fitch:

"Dear Sir,—I desire to make a public acknowledgment of the very great benefit I have derived from your remedies, advice, and treatment. I first applied to you in December, 1853. I had then been out of health some two years, and seriously ill from the September preceding. During December and January I coughed almost incessantly. I suppose consumption is hereditary in my family—having lost one sister from it; my mother died of heart disease, and her mother of bronchitis. I have been since a boy by no means

robust—never capable of enduring much hardship, and somewhat delicate in frame and constitution.

"In September, 1853, I took a severe cold which settled in the throat and lungs. I had been subject to cough more or less for four or five years previously. Now the cough was terrible, and no means that I employed seemed to even palliate it. It was attended by copious expectoration of a thick, yellow matter, and I suffered considerable pain about the chest, sides, &c. I lost my voice entirely in December—not being able to speak above a whisper—and did not recover it until after the use of your remedies. I had a hectic fever daily, and exhausting night-sweats. My strength and flesh rapidly left me. I was soon reduced to a mere skeleton, and was unable to walk across the floor without assistance. My family physician gave me up; and he and some five or six others in our place said I could not live longer than spring. My friends supposed these physicians were correct, and also gave up all hopes of my recovery. They all pronounced me in true consumption, and the disease far advanced.

"Such was my condition when, on the recommendation of a gentleman here who had been cured by you, I applied by letter for your opinion and remedies. Your reply was that my case was a bad one, but you hoped you could help me. You sent me your mechanical and medical remedies, and their effect was wonderful. Within two weeks from the time of commencing their use, I began to amend. My cough gradually decreased. I began to gain strength and flesh. I recovered my voice; and from the condition I have described I have steadily come up until my health has become well established. My friends are astonished at my recovery. But what is singular, our physicians are so illiberal as not to acknowledge that your remedies have been the means of my recovery. This astonishes me, as they know that I was steadily sinking and getting worse, in what they themselves pronounced true consumption, until I commenced your treatment; that since I have been under it I have as steadily recovered, being now restored to health, and that I have used no remedies but yours. It does seem to be as irrational as it is illiberal to deny the restoring, healing power of your remedies in my case. I *know* they have cured me, and so do our physicians; but they have not the manliness to acknowledge it. From the spirit they show, I really think they would have preferred to see me die under their hands than be cured under yours.

"You may be sure I feel very grateful for what you have done for me. My case certainly proves the remarkable efficacy of your treatment. Let me add that my lungs seem entirely restored and healed; but the left lung is much smaller than the right, showing it to have been the seat of very serious disease.

"You are at liberty to make such use as you please of this letter.

"Yours respectfully,

"A. H. ROCK."

CHAPTER XXVII.

DISEASES OF THE HEART.

Having concluded my remarks upon diseases of the lungs and air-passages, I now proceed to notice diseases of the heart. A most profound dread of all descriptions of heart-disease is entertained by most persons. It is usually considered a very difficult disorder to manage, and one rarely ever relieved. Indeed, disease of the heart is usually set down as entirely beyond the reach of medical remedies, and therefore little or no thought is bestowed upon the means adequate to its relief.

ORGANIC DISEASES OF THE HEART.

ENLARGEMENT OF THE HEART.

It should be remembered that the heart is a hollow muscle, or a pair of hollow muscles, strong and elastic, capable of powerful contraction, and expanding so as to contain ordinarily about three to five ounces of blood. The size, however, varies in different individuals of the same height, girth, and weight; it being in some much larger than in others; and this fact should be borne in mind in examining the heart, where there is deranged action, otherwise we shall be liable to be deceived, and led to suppose there is enlargement in some cases where there is only a naturally large heart.

The heart is liable to several organic diseases. One of these consists in an *enlargement of the heart*, which may arise from the thickening of its walls and increase of its weight, whilst at the same time its strength and also its capacity to receive the blood are diminished. In other words, when thus enlarged it will hold less, and its power of urging forward the circulation will also be less. Hence, one of the earliest effects of this form of heart-disease is obstruction to the circulation of blood.

SYMPTOMS INDICATING ENLARGEMENT OF THE HEART.

This affection usually occurs in persons with large, deep, broad, full chests, with a heavy aspect of body. Its effect is also to enlarge the chest.

If the enlargement of the heart is considerable, the ribs covering it will usually be lifted up, and the left side will be visibly enlarged, although the heart may be enlarged and the ribs retain their natural position, or not lifted up to any perceptible extent. The patient will perceive an uneasiness—a crowding sensation in the left side, and a feeling of intense anxiety is frequently felt by the patient about his condition. He will become low-spirited, and the very worst anticipations will pervade his mind. Irregular beating of the heart will take place; and the patient, upon exercise or being suddenly startled, will sometimes experience a stoppage of the heart, with a shock as if the heart bumped against the ribs, which is felt to the extremities of the body, and this is followed by quick, heavy beating. On walking about and exercising, this heavy beating is greatly increased; choking in the throat, and a smothered, suffocating sensation is often experienced. Upon attempting to ascend stairs or a hill, the patient finds it impossible, or suffers greatly from the attempt, and is soon obliged to give it up. The pulse in a great many instances is much slower than natural, but is very easily excited, and is very frequently feeble or intermittent—that is, it drops a beat occasionally. The patient on lying down in bed, as he is falling asleep will suddenly start as if a blow had been given him, and spring up in a state of much alarm. This starting may be repeated several times, and the attempt to fall asleep be in this manner prevented for a considerable time. This fills his mind with dread, which serves to increase his nervousness, and consequently to aggravate the disease. After lying down in bed for some little time, however, the circulation of his blood will become more free and quiet; he will fall asleep, and continue sleeping tolerably well all night. In many cases, however, the sleep will be very heavy, and the breathing stertorous—that is, snoring. On first awakening in the morning the patient finds the heart very weak in its action, and the circulation languid and feeble, and it is with much difficulty that it is aroused. He will often at this time perceive a trembling throughout the whole

system, occasioned by the struggle of the heart and great vessels to start the circulation. It may be compared to the effect that is noticed on board of a steamer when struggling against a current, where the ship seems to tremble throughout its whole structure. Numbness is felt in different parts, with a prickling, as the circulation is gradually restored. On placing the ear over the heart in nearly all cases of enlargement, we perceive a deep, heavy beating—a slow, heavy pulse—which seems to strike hard upon the ear, as though the heart were close to the surface. This heavy beating of the heart, when the enlargement is universal, may often be perceived by placing the ear upon any part of the chest; but if it is only partial—that is, if only one side of it is enlarged—then on the opposite side of the chest the beating will be far less distinct: thus, if the right side of the heart is affected, we will perceive its beating throughout every part of that side; if the left side is the one affected, we shall perceive its beating far more in the left than in the right side; and where the enlargement is general, as I have said, the beating will be perceived on both sides of the breast-bone, but somewhat more distinctly on the left side. The patient will often feel this beating all over him, and upon lying down he can count every beat of his pulse. He is often full of anxiety, dreading to go asleep, and will lie for hours noticing this state of the heart. In almost all cases the patient experiences more or less pain about the left side in the region of the heart, which sometimes extends to the shoulder and down the left arm. Not unfrequently there is also a peculiar numbness and loss of muscular power in the left arm.

As the disease advances, the patient finds it impossible to go up stairs. Long walking and much exercise of any kind induce attacks of short breathing and choking in the throat, and a sense of impending suffocation. He is unable to lift any thing or to make any exertion, and sudden efforts entirely overcome him. In this condition of the heart, any sudden effort, as running up hill or running up stairs, especially if alarmed, will produce a sudden stoppage and complete suffocation of the heart; and sometimes the unfortunate patient, under these circumstances, falls to the earth a lifeless corpse. I could mention numerous cases of sudden death that I have known occurring from over-exertion when the heart was affected—but this is not necessary. There are few persons who have not witnessed or heard of many instances of the kind,—instances where persons troubled with

heart-disease have fallen dead from over-exertion or a sudden muscular effort, or from passion or fits of anger, &c. From any cause that suddenly excites the system, this fatal effect may follow.

As the enlargement of the heart progresses, lying down becomes impossible. The appetite is generally good, but only a very little food can be taken into the stomach at a time, as the least oppression of this organ will at once greatly aggravate the condition of the heart.

If the person should not die suddenly, the feet begin to swell, and the interrupted or impeded circulation produces its natural effect, which is universal dropsy, continuing for a greater or less length of time, until, in an unexpected moment, and often after having felt much better for a day or two and arranging plans for future enterprise and pleasure, and hoping for a return of health, suddenly the thread of life is snapped asunder, and the patient is launched into eternity.

Enlargement of the heart may take place at any period of life from the age of five years to seventy; but I have observed it more frequently in those of middle age than in young persons.

OSSIFICATION OF THE HEART.

By ossification of the heart is meant a hardening or converting into a bony form some portions of its valves or of its substance, or of the large blood-vessels immediately connected with it. This disease is most apt to occur in advanced or middle life, and very rarely occurs in young persons. It is most frequently found to commence at about fifty years of age. Its effect upon the heart is to weaken its powers of contraction and to render it in every respect feeble. In enlargement of the heart we often find it accompanied by but little acute pain; but in ossification of this organ the patient often experiences a peculiar sharp cutting pain, especially upon any considerable exercise—ascending hills or walking where much exertion is required, as walking through the snow, &c. In these circumstances he is apt to feel a sharp, cutting pain about the heart, with much palpitation, at the same time the breath being suddenly cut off. These latter symptoms become aggravated as the disease progresses, and soon assume almost the same character as those that occur in enlargement of the heart, followed by the same results. Sometimes

the ossification of the heart will be in its arteries, and at others we find it more or less in the walls of the heart itself.

In ossification of the heart, the pulse and the beating are far more intermitting and interrupted than in enlargement. The person, upon any sudden start or any mental or bodily excitement, will feel the first effect at the heart. The first bound of the heart upon excitement will be repulsed by sharp pain, as this increased action stretches the ossified portions, which cannot expand as in health; hence the sudden attack of pain and an arrest of the circulation at the very moment when the excitement calls for its increase. In this way the patient will often suffer the most agonizing pain at the heart; at the same time there will be a depressing sensation at the pit of the stomach, attended with great anxiety. By stillness and quiet for a time the excitement passes by, and the heart will resume its wonted action.

In moderate ossification of the heart the patient will lie down nearly as well as if no disease existed, and this partly distinguishes ossification from enlargement of the heart.

In simple ossification we do not notice any lifting up of the ribs or enlargement of the left side, and the peculiar crowding sensation about the heart is not as great as that which is experienced in enlargement. Enlargement of the heart is apt to occur in persons of large chests, short necks, and full habit of body; but ossification may, and often does, occur in very lean, spare persons, and without any particular enlargement of the chest, but rather a contraction of it. Enlargement of the heart is noticed oftenest at the middle periods of life, while ossification is usually observed at much later periods. But little pain is experienced in enlargement, whilst often very acute pain is observed in ossification. The slow, distinct, heavy beating we find in enlargement; in ossification, the quick, tremulous beating, as if it acted from the influence of fear, or as if to enlarge it more would be to induce pain. In enlargement of the heart much choking is felt about the neck at times, and the blood-vessels are swelled and enlarged about the neck, especially on any excitement; the face is also red and puffy, and great oppression is felt about the head; but in ossification much less of this choking is experienced, and far less oppression about the head. In the early stages of enlargement there seems to be great fullness of blood and puffiness of the system; but in ossification there seems far less blood, and the whole system for a

long time may be very much attenuated. Persons may die of ossification without any dropsical symptoms occurring; but in enlargement of the heart dropsical symptoms nearly always ensue before death, unless death is brought on by some sudden excitement. In enlargement of the heart death from apoplexy will very often take place; whilst in ossification persons are much more liable to attacks of palsy or paralysis, and this of a partial character—usually in the left side, arm, leg, face, and indeed the whole left half of the patient. Enlargement of the heart is not apt to be attended with any great apparent waste of the body, which is often the case in ossification. Both are liable to produce sudden death; and both, when protracted, often terminate in dropsy. Dropsy from enlargement of the heart will take place more frequently at a much earlier period than in cases of ossification.

Finally, enlargement of the heart progresses more rapidly and terminates much sooner than ossification. Ossification is usually a slow process, and it may be some years from its commencement to its termination. This is also true of the enlargement of the heart in some cases, but this usually originates and passes through its course much more rapidly than ossification.

FAT ABOUT THE HEART.

Cases frequently occur where great accumulations of fat take place about the heart, occurring mostly in very fleshy persons, characterized by short wheezing breathing, short necks and fleshy chests. It is found in many females who have a great mammary development and are very fat. In these cases, without any disease of the heart itself, the circulation may become exceedingly obstructed and impeded. Difficulty in lying down, and almost every symptom of enlargement of the heart, we shall notice where there are great accumulations of fat about it.

In one point it differs from almost every other condition of the heart—particularly from ossification and enlargement—viz., by the extreme feebleness and slowness of the pulse, and by there being no intermitting. In ossification the pulse may often be feeble, but it will also be intermitting, palpitating, and interrupted at times; but in accumulations of fat we find no stated interruptions of the pulse, but only great feebleness, palpitation, choking, &c., on sudden excitements

or sudden efforts. This weakness will differ in persons according to the strength and vitality existing; but there is the same difficulty in lying down and the same starting in the sleep as in enlargement. It almost always occasions stertorous breathing and loud snoring during sleep, and the sleep will be heavy—more so even than in enlargement of the heart.

I would here observe that these three states of the heart may be complicated with each other. The person may at the same time have much fat about the heart, and the heart may be enlarged and more or less ossified, so that all the symptoms I have mentioned as peculiar to these different states of the heart, may be found in one patient.

THICKENING OF THE VALVES OF THE HEART.

Thickening of the valves of the heart is a disease of very common occurrence. One of the earliest and most marked effects is a sense of weakness about the heart and a feeble circulation. It is often unattended with pain, and may continue many years without any more injurious effects than debility of the heart and feebleness of the circulation of the blood. This state of the heart may occur in very young children, and continue until late in life, when it is often followed by ossification and death. This thickening of the valves is particularly indicated by a peculiar rasping sound. When the blood passes the valves of the heart, their rigidity, caused by thickening, prevents its free passage, and occasions a rough, rasping sound. This sound is quite unmistakable—it is like no other in the system—and indicates but one disease,—the one of which I am speaking.

The effects of this disease may be greatly palliated and the progress of the disease itself staid. Its cure is, however, often quite dilatory.

RHEUMATISM UPON THE HEART—CAUSES OF ENLARGEMENT, THICKENING OF THE VALVES, AND OF OSSIFICATION.

No disease of the human body or any of its organs ever occurs except from some specific cause, and this is strikingly so of disease of the heart.

While the heart, as I have before said, is a muscular structure, and therefore obeys the laws that govern all the muscles of the body, it

should be remarked that the valves of this organ are formed of a substance more nearly resembling *cartilage*, similar to that which covers the joints, and is found in the extremities of the bones elsewhere. It is therefore an organ liable to the same diseases which attack the joints and muscles.

Now rheumatism, as is well known, is a disease which is apt to attack the joints of the body, as well as the muscles, membranes, tendons, &c. It is a disease always produced by humor in the blood, and is remarkably predisposed to change its place. It will pass from one limb or from one joint to another—from one set of muscles to another—and will often pass from the extremities to the centre, and attack the large organs within the body. This is truly so with regard to the heart. Rheumatism rarely ever commences in the heart itself; but originating on some distant part, it is transferred thence to the heart. This very often occurs, the disease being sometimes transferred to the valves of the heart; at others to its substance, producing enlargement. When attacking the substance of the heart or the membrane covering it, it may, and often does, involve the great blood-vessels that lead to and from the heart, as well as those which go to nourish the heart itself, as the coronary arteries, &c.

I believe that ossification and enlargement of the heart, and the thickening of its valves, are all in most cases produced by humor or poison in the blood, first developed in some other part of the system, which it leaves and passes to the heart. I have observed this to be the case in the history of a vast many persons who have been attacked with heart-disease. Indeed, I have almost universally found that subjects of heart-disease have been at some time afflicted with humor, rheumatism, &c., which had retired from the original seat of development, and subsequently manifested itself on and about the heart.

CURABILITY OF ORGANIC DISEASES OF THE HEART.

I have treated a vast many cases of organic diseases of the heart, and consider them eminently curable. In fact, no class of diseases ever come under my notice or call for my assistance, that I find so perfectly curable and manageable, in almost every instance, as diseases of the heart. I cannot call to mind as many as fifteen persons, treated by me for this complaint, who have not perfectly recovered, or satisfactorily so; and these cures have been effected in persons of

advanced age, and in all ages and both sexes. Indeed, I have found heart-disease to be exceedingly curable, even when patients have been entirely given up by all their medical advisers as past hope.

REMEDIES FOR ORGANIC DISEASES OF THE HEART.

After I shall have described the sympathetical and functional diseases of the heart, I will then give the treatment as applicable to the cases of heart-disease; but will now only observe, that in treating organic affections of the heart, rheumatism, enlargement, and ossification, thickening of the valves, &c., I give remedies in the first instance to purify the blood and to expel from the heart and the whole system, as far as possible, those humors or poisons, which, by settling on the heart, have induced its disease.

In the second volume of this work, upon therapeutics, I shall explain those medicines which I have found most useful in combating and curing disease of the heart

FUNCTIONAL DISEASE OF THE HEART.

INFLUENCE OF DISEASED LUNGS UPON THE HEART.

That the pulsations of the heart may be at all times regular and uniform, continuing thus through life—of sometimes a hundred years—it is absolutely essential that the supply of blood should be constant, equal, and uninterrupted. Now, there are many conditions of the lungs in which these organs cannot supply the blood to the heart in an equable stream or volume. For example, in asthma the circulation of blood through the lungs is temporarily impeded. So when the lungs are hepatized, or when from ulceration parts of the lungs have been removed, or when from the congestion of the lungs, and sometimes from great debility of those organs, the blood is not properly circulated through them to the heart, and thus is caused an interruption in the beating of the heart. In many instances true organic disease of the heart will take place when this irregular action has been long continued. In cases of long-continued asthma we often find organic disease of the heart; and in a great many cases of consumption the irregular action of the heart will lead inexperienced observers to suppose that the heart is the seat of the disease when

it is not diseased at all. Still, as I have before said, the heart may become organically affected. I have witnessed many cases where both the heart and lungs were seriously affected organically at the same time.

INFLUENCE OF DERANGEMENT OF THE STOMACH UPON THE HEART.

Of all the organs of the human body, none exerts so marked an influence upon the heart as the stomach. Any form of indigestion may derange its action. From great distention with gas or food, it may press up under the heart and obstruct its movements by simple mechanical pressure. In this way there is often a disturbed action of the heart produced; and sometimes a total suspension of its action is caused, when of course death ensues. In very fleshy persons, where there is much fat about the heart, a distended and loaded stomach will almost always prove injurious, and sometimes occasion sudden death.

A great number of persons of this description, without any organic disease of the heart whatever, have been killed by heavy suppers, particularly of solid food. I have known many cases of death occurring in this way from distention of the stomach, and will mention one, as it fully illustrates what I wish to say on this subject.

A young married lady, an acquaintance and friend of mine, became the mother of a fine little boy; and when it was ten days old the attending physician called and found the infant on its mother's lap a corpse. Expressing great surprise at the event, and inquiring the particulars attending its death, he was told by the mother that the child, being inclined to cry, she had nursed it as long as she had any milk, and then fed it; and as it continued to cry, she continued to feed it, until it suddenly gasped and died. In order to give a certificate of the cause of death, the physician, a few hours after, made a post-mortem examination, and found the stomach of the child distended to its utmost capacity; the upper portion of it, owing to its distention, had risen up under the breast-bone and into the left chest, so as to completely stop the action of the heart by pressure. Of course death was the natural consequence.

Precisely similar results will take place when any persons greatly distend the stomach, especially in those suffering deranged action of the heart in any form—whether from enlargement of the heart, from

the heart being relatively smaller than natural, from rheumatism in the heart, from ossification, or from feebleness of this organ, as is very often witnessed in elderly persons.

In any of these cases, slight mechanical pressure on the heart by a distended stomach or colon, will derange its functions, inducing palpitation, partial or total stoppage, with a sense of great oppression in the left chest, pressure at the pit of the stomach, and choking in the throat. Persons laboring under any affection of the heart whatever, should be fully warned against too hearty meals, especially of indigestible food. They should be warned to avoid every description of food that disagrees with them and that lies heavily upon the stomach, or that induces the generation of gas in the stomach; for by these means dangerous derangement of the heart may take place.

EFFECTS OF INDIGESTION, OTHER THAN MECHANICAL, UPON THE HEART.

We find that a vast many dyspeptics are subject to palpitation of the heart, and a sense of extreme uneasiness about the pit of the stomach—where the food remains long and becomes sour; and the irritating effect of the acid upon the coats of the stomach will, through the nerves, be communicated to the heart itself, and produce severe attacks of palpitation. In these cases the disturbing effects cease as soon as the acid is neutralized, and they may be allayed by evacuating the contents of the stomach.

Unusual quantities of bile in the stomach, by becoming too stimulating and acrid, will very much affect the heart. The mechanical effect of large quantities of food in the stomach upon the heart will usually be experienced in a short time; but the nervous effect arising from indigestion is not often perceived in less than six to twenty-four hours; although in some rare cases it may be noticed much sooner, and sometimes it will not be noticed until the second or third day after taking the indigestible food, when the patient has perhaps forgotten the irregularities of his diet or that he has eaten any thing that may disagree with him. Some hours before the attack of palpitation, he will feel distressingly low-spirited, with a sensation of dulness and heaviness about the head, often accompanied by more or less headache. If at this juncture the weather should be heavy, or a cold, damp easterly or southerly wind be blowing, his malady will

be greatly increased. The stoppage of the circulation will usually commence towards evening or at bedtime in the extremities, which oftentimes become very cold; great oppression takes place about the head and left side. Purple spots are sometimes noticed on the lower extremities, or elsewhere, as if from bruises, which disappear after a day or two, and leave a yellowish stain. The patient feels nervous and terrified. He experiences a crowding sensation in the left chest, and over and about the heart. In this state heavy palpitation of the heart is apt to take place, sometimes lasting for hours, and until the equilibrium of the circulation is restored, which may be hastened by the use of hot foot-baths, mustard-poultices over the side, and by proper internal stimulants. These, judiciously used, will generally in a short time entirely relieve the patient. I have in some rare instances known these attacks to terminate fatally where suitable remedies have not been employed. These attacks are more apt to occur in the cold and changeable seasons of the year—in spring and fall, and after great exposure to cold winds. Going out in a very cold winter's day and greatly chilling the person, particularly the feet, will often lead to these attacks in persons predisposed to them.

There are some articles of food which, in some constitutions, seem particularly to affect the heart. One of these is coffee. Frequently persons affected by any disturbance of the heart, cannot make any use of this beverage whatever. Sometimes they cannot take even tea, being obliged to eschew both tea and coffee. By such persons cocoa and its preparations will often be found agreeable, especially when it has been entirely freed from its oil.

Almost every individual liable to disturbances of the heart, recognizes from his own experience some articles of food that particularly disagree with him, and which readily affect his heart, because of their indigestibility, and from being long retained in the stomach. Such persons should avoid these articles of food steadily and resolutely, and never allow themselves to be tempted to take them. Very little food should ever be taken after dinner, so that on retiring to bed the stomach may be empty, and not forced to encounter the difficulties engendered by the process of digestion during the hours of sleep. And here allow me to remark, that the great sympathetic nerves and ganglionic *plexuses* that supply nervous energy to the stomach, supply it also to the heart; and in cases of feeble stomach and feeble heart, a great deal of tact, art, and management may be displayed

by so engaging the functions of the stomach and heart as that but one of these great organs shall be much excited at the same time. This is particularly observed on retiring to bed at night, when all the powers of life should be unembarrassed and in placid rest. The heart is relieved of full one-half of its accustomed labor, and the brain and nervous system and all the muscles of the body are in quiet repose. Now no one but an injudicious, or indeed a madman, will at this time load the stomach; so that at the very time when the heart is naturally relaxed, the nervous energy will be still more called from it to aid the process of digestion going on in the stomach. This is the very time when all the nervous energy should be directed to supply force to the heart during the long hours of sleep, and of course should not be diverted from the heart by imposing the duties of digesting food.

A great many old persons, and delicate persons having feeble circulation, by managing the heart and stomach in the way I have mentioned, so that but one of them shall be much excited at the same time, may thus obtain action from them both that shall continue life and health unimpaired for many years, even to venerable age; whilst those pursuing an opposite course will have the thread of life prematurely cut off, even when young, as I have repeatedly witnessed. This leads to the remark, that any person laboring under any form or variety of heart-disease, should eat all, or nearly all, the solid food for the day before two o'clock P. M., and never indulge in much, if any, solid food after that hour; so that on retiring to bed at night the stomach shall be nearly or quite clear of food.

CURABILITY OF FUNCTIONAL DISORDERS OF THE HEART.

I would say, that these diseases are, in nearly all cases, perfectly curable, and that few persons need despair of relief, even at very advanced stages of this disease, and when given up as hopeless.

The remedies I employ are mechanical, constitutional, and local. I advise shoulder-braces to expand the chest, and recommend the wearing of the abdominal supporter—except in persons short and fleshy—with abdomen fully developed, &c. In these cases the supporters are not required, unless in females who are affected by *prolapsus uteri*, or much falling of the bowels. But the latter persons will find themselves greatly benefited by full abdominal support. If

required, I give medicines to remove indigestion, correct costiveness, open the kidneys and skin, and for equalizing the circulation through the liver, lungs, and entire body; also remedies to purify the blood: and in this way I strive to place the whole system as nearly in a state of complete health as possible. I then give medicines that have a specific action upon the heart itself, increasing its strength and the regularity of its beats. If much pain is present about the side and through the heart, I use liniments, and sometimes mustard-poultices, over the heart; although the latter I use rarely, except in sudden attacks, thus producing slight irritation, which may be continued for a long time, often with great advantage.

In some cases where there is great feebleness of the heart, I use electro-galvanic plates,—one being placed over the heart, and the other opposite, near the spine on the same side, connected by appropriate wires. These may be worn, if necessary, for years, with great advantage. They will often be found especially useful if worn in bed during the hours of sleep, as they will sustain the drooping action of the heart.

FUNCTIONAL AND SYMPATHETIC DISEASES OF THE HEART.

There is a large class of disorders to which the heart is liable, that involve more or less interruption or disturbance of its functions, but which do not proceed from organic disease or change of structure in the heart itself. I will notice some of them.

PALPITATION OF THE HEART.

Palpitation of the heart, arrest of the circulation, stoppage of the heart and intermission of its beats, and almost every possible derangement of the heart's action, may arise from disease in other organs, or from mechanical causes. In many instances, wasting of the left lung, and sometimes a disappearance of that organ altogether, will leave the heart unsupported, and in this way occasion great irregularity in its beats; in fact, the heart will seem to fly about and shift its place, whilst the disease of the lung might not be suspected—all the trouble being imputed to disease of the heart. I have witnessed many instances of this kind in my own practice, and have known some in the

practice of other physicians; and almost invariably the heart would be pronounced the seat of disease, when it was only sympathetically affected, or else directly affected by losing its support, and having to beat in an empty or partially empty chest.

PALPITATION FROM FALLING OF THE BOWELS.

I have witnessed a great many instances where palpitation and apparent disease of the heart have originated from falling of the bowels.

In February, 1847, a gentleman called upon me who was a book-keeper, and had been for years in the habit of standing upon his feet a number of hours every day, the effect of which was to induce relaxation of the abdominal belts and falling of the bowels, which had taken place to a considerable extent—so much so that the heart was partially dislocated. He had consulted several of the most eminent physicians in this city, who had pronounced his case one of incurable heart-disease—an organic affection of the heart itself—recommended perfect rest and retirement to the country; informing him, at the same time, that he was beyond all medical aid. I gave him remedies, among which I employed a well-adjusted abdominal supporter and shoulder-braces, and with them suitable medicines. He was restored to perfect health in six weeks, and is now, for aught that I know, as well as ever. He had suffered from this heart difficulty for several years when he called upon me, and had lived for years in constant expectation of sudden death.

Falling of the bowels is a very common cause of palpitation of the heart in a vast many nervous and excitable females; and so also is falling of the womb. All uterine complaints may, and often do, produce palpitation of the heart.

EFFECTS OF DERANGEMENT OF THE LIVER UPON THE HEART.

The ascending *vena cava* passes directly through the fissure of the liver; and it may happen in some cases that a swelling of the liver, or an accumulation of gall-stones in the bladder, will partially obstruct this great blood-vessel, so that the heart is affected, or supplied irregularly with blood. At one moment it is greatly distended,

at the next instant there is no blood at all, and in this way irregular action of the heart is often produced.

Irregular action of the heart, if long continued, will lead to organic derangement and change of structure in the heart itself, of which I have observed many cases.

EFFECTS OF COSTIVENESS UPON THE HEART.

In many cases the effects of costiveness upon the heart are both mechanical and constitutional. Where the bowels are slow, it is very often the case that the colon or large bowel becomes distended with gas and excrementitious matter, especially at the left flexure, which is just below the stomach, and this presses upward behind the liver and stomach, especially, pushing them up against the heart; and in this way mechanically deranging its action, exactly in the same manner as pressure on the heart is produced by the distension of the stomach.

Costiveness also affects the heart, by throwing back upon the circulation and into the blood large quantities of matter which should have been passed off by the bowels themselves. Consequently, in heart complaints habitual costiveness becomes a cause by which the quantity of blood is much increased, and the circulation in this way rendered more laborious to the heart. Costiveness also causes a distension of the whole bowels, so that they mount upward to the chest and mechanically obstruct the heart.

Habitual costiveness will often derange the functions of the liver and impede the secretion and delivery of its bile, frequently producing slow congestion of the liver itself, so as in this way both mechanically and constitutionally to influence the liver and greatly obstruct the circulation of the blood. From these combined causes swelling of the lower extremities will often take place, and general dropsy supervene, or be indirectly produced.

In all cases of heart-disease, attended with slow bowels, I advise the constant, faithful, and continued employment of gentle cathartic medicines, taken at bedtime, so as to move the bowels the next morning. This course will constantly and continually relieve the heart, as I have witnessed in a vast many cases.

INFLUENCE OF THE SPERMATIC ORGANS UPON THE HEART.

The influence of the spermatic organs upon the heart is very marked and very great. Venereal excesses, seminal losses incurred by lascivious dreams, from secret vices and indulgences, and spermatorrhœa induced by any cause—all will rapidly affect the heart, producing palpitation, weakening its functions, and depressing its power to circulate the blood, lessening the vitalizing powers of the brain and nervous system;—thus soon reducing the individual to utter prostration, both mentally and physically.

These causes should be completely and promptly corrected. They may be removed without difficulty, and thus the heart may be relieved from the prostrating effects produced by seminal losses and excitants.

Palpitation of the heart, occurring in young men between fifteen and twenty-five, especially if single, and often when married, should lead us at once to suspect the presence of seminal debility, resulting from some or all of the causes I have mentioned—those produced by lascivious dreams being beyond all comparison the worst.

ANGINA PECTORIS.

This is a disease having its centre in the heart. Its name signifies suffocation in the chest, or of the chest. It is one of the most obscure and terrible diseases known to us. Few diseases cause more excruciating suffering, both of body and mind, than this. It rarely ever occurs in young persons, and seldom is developed in any one until after forty. It is peculiarly a disease of old people, occurring usually late in life, from fifty to eighty, and generally in persons of full habit, those who are fleshy, ruddy, large-chested, and with slow circulation—of sedentary habits—professional men, and usually those in the easy walks of life; men who have lived well, drank more or less freely, and who have been well to do in the world. It very rarely occurs among the poor or among laborious persons, or those in humble life.

It is in part rheumatism or neuralgia upon the heart. It is usually preceded for a longer or shorter time by short breathing, difficulty

in ascending stairs, or in walking fast, &c. Great anxiety is felt at the *precordia* or pit of the stomach, with a sense of fulness and oppression there, and in many persons there is frequent belching of wind or air from the stomach. The digestion is very much impaired—the food will lie long upon the stomach, and a heavy meal is extremely apt to produce an attack. A sensation of fluttering is felt at the pit of the stomach, and the bowels are apt to be exceedingly slow. During these attacks the patient experiences most acute and excessive pain in the left side or under the breast-bone, and through the regions of the heart. Sometimes the agony is terrible, producing something like spasms in the chest and stoppage of the heart. The pulse is more or less intermitting; and after a recovery from an attack, it is often a mere thread, scarcely perceptible, and exceedingly quick in its beats; it continuing so for hours, and until the circulation is fully established throughout the system. The surface of the body, and the feet, hands, and limbs are disposed to be cold; still, a chill throughout the chest or at the pit of the stomach is only rarely complained of: the terrible and agonizing pain is what agitates and overwhelms the patient. There is a distressing sense of suffocation; the patient feels as if his chest was not large enough to hold his heart. He will often experience the most excruciating pain in front of the left arm—about midway between the shoulder and elbow, or at the insertion of the deltoid muscle. The pain in the chest is in some cases like that of an intense colic, as it is experienced in the bowels; in others it is a sharp, sudden, cutting pain, by which the patient is rendered instantly powerless; so intense that oftentimes the perspiration will pour from the body and saturate the clothing. The mind remains clear all the time. These attacks are apt to take place after dinner, in the latter part of the day, in the evening, at bed-time, or at midnight, but may occur at any hour; yet they are far less liable to occur in the early part of the day. They often come on with the quickness of lightning, as if a dagger had been thrust through the side, heart, and arm. Sometimes the pain is wholly confined to the arm; and often in the very article of death the patient complains and screams out from the intensity of the pain in his arm. He may have these attacks several times in a day, or they may take place at intervals of several days; and finally wear out the patient by the exhausting want of sleep, impaired digestion, interrupted circulation, and most acute suffering.

CAUSES OF ANGINA PECTORIS.

The causes of angina pectoris have been exceedingly obscure; but they have usually been supposed to have some connection with ossification of the heart; and few have suspected, what I believe to be the fact, that the stomach has something to do with its production. That the heart may be more or less ossified in persons subject to angina pectoris, is true; but there are a vast many persons who suffer from ossification of the heart—its substance, vessels or valves—who have never experienced any symptoms of angina pectoris.

In some cases where this complaint has proved fatal, on examination after death no trace of disease in the heart has been discovered; and the physician has been left in hopeless conjecture as to its true cause. From the symptoms I have noticed in many cases, particularly the uniform presence of *flatus*—gas or air—in the stomach; from the sensation of fulness there, and the presence of *flatus* in the bowels, especially in the large bowels; from the agonizing pain in the heart itself, the grinding, swelling, crowding, suffocating sensation there experienced by the patient, and the peculiar throbbing in the large vessels that is felt at the top of the chest, and from the happy effects of remedies calculated to disperse wind or flatus,—I have long been disposed to think that angina pectoris is often, and perhaps always connected with a development of air in the heart itself. This, I believe, may go on and be evolved to such a terrible extent that, if not relieved, the heart will burst.

The Rev. John N. Maffit, a very prominent preacher of the Methodist persuasion, died in Mobile, Ala., a few years since, from angina pectoris, having only one attack of it, and dying in about six hours after the commencement of the attack. His suffering beggared description. His heart became exceedingly distended, and finally actually burst; yet, upon examination after death, there was discovered no sign of ossification; but it was plain that the walls of the heart had become thinner; and I have no doubt that his death was occasioned by a development of air in the heart.

The heart may, no doubt, be the subject of true neuralgic rheumatism and gout at the same time, so that the suffering from this source may be very great, and the angina pectoris may partake very much of a neuralgic character. But gout and rheumatism of the

heart are not attended with such sudden shocks as strike the heart in angina pectoris. Neuralgic rheumatism and gout upon the heart are far less intermittent in their attacks than angina pectoris; and after their accession, their continuance is much more regular and constant.

The various phenomena of angina pectoris very clearly indicate to me that gas within the heart is that which gives a distinctive feature to this disease, and that it may be properly called a true *colic* of the heart.

I have no doubt that it may be developed without the presence of neuralgia, rheumatism, or gout. Still it is an open question, and perhaps the simple cases may be very few; and those complicated with neuralgia, rheumatism, or gout, may form, and probably do, the greater majority.

In persons of the habits I have mentioned, angina pectoris is very apt to take place in the changeable seasons of the year, and is very much influenced by heavy storms, by cold, damp northeasterly winds, and what is termed a heavy state of the atmosphere; by great exposure, taking cold, being drenched by rain, &c. Many of these causes may so depress the powers of life, and so much interrupt the circulation and weaken it, as to develop gas in the large blood-vessels, and especially in the great centre—the heart itself; and more particularly when at the same time we find the digestion greatly delayed, the food loading the stomach and continuing there a long time, by which great quantities of gas are there developed and in the large bowels; whilst the slow action of the bowels, especially the large bowels, contribute to a still greater development of gas—the great left flexure of the colon often becoming thoroughly distended with large quantities of excrementitious matter, and with a great amount of gas. With nearly all of these disturbing causes acting upon the patient—causes which contribute to retard the circulation and reduce the vital forces of the system, gas will be developed in the heart itself, from blood partially stagnated in this organ. If this is the case, we may very well suppose that the heart would be thrown into terrible confusion. We see how, under these circumstances, those peculiar shocks occur, and those sudden stoppages, and that excessive pain. A sudden evolution of gas would readily cause a shock, and, if not at once dissipated, might terminate life, or continue to expand the heart until it burst, as in the case of the Rev.

John N. Maffit. It is in this way that I account for the sudden shocks and the extreme suffering experienced by this class of patients. The same pain is felt in colic in the bowels. In colic the patient will have severe suffering, which is quite constant; but at recurring intervals he will have sudden attacks of increased pain, lasting a few moments, and then subsiding to occur again, unless prevented by remedies.

This I conceive to be a true solution of the varied phenomena of angina pectoris. To my mind it clearly explains every symptom, and shows why sudden death may occur in this disease, and yet a post-mortem examination reveal no ossification or change of structure, and no lesion of the heart itself. Death having occurred by gas in the heart, which has resisted its action, and consequently stopped the circulation of blood, the heart would not exhibit necessarily any traces of disorder. It may again and again in its struggles have relieved itself and driven off the gas, yet it is finally overwhelmed and overcome by this terrible enemy. In this disease the urinary secretions are generally very scanty and highly colored, and this still farther embarrasses the general system. Nearly all the sudden deaths occurring from a stoppage of the heart's action, in my opinion arise immediately from a sudden generation of air in the heart, produced by causes I have enumerated.

TREATMENT OF ANGINA PECTORIS.

The treatment of angina pectoris should be first directed to the subduing of the immediate attack, and relieving the patient from present suffering. After this is accomplished, such remedies should be employed as will remove the cause of the disease, and obviate the liability to it. We must immediately open all the emunctories of the body; and if the patient is of very full habit, and not enfeebled by advanced age, we may, in the commencement of the attack, order blood-letting from the arm. I have known attacks of angina pectoris occurring as early as the thirty-fifth year where blood-letting was particularly useful. After the patient has been relieved by bleeding, if bleeding has been determined upon, we may then apply mustard-poultices over the region of the heart, or full free blistering with *emplastrum cantharidis;* or, what is eminently useful, and sometimes affords prompt relief, we may apply *caustic aqua ammonia*

over the seat of pain, which will, when highly concentrated, produce a quick impression, even to vesicating the skin in from eight to ten minutes, and will usually arouse the circulation in the promptest manner. After this blistering, the parts may be covered over with a plaster of Burgundy-pitch, so as to keep the whole surface warm and gently irritated, which will stimulate the heart to increased action, drawing from it a portion of the blood, and allaying any rheumatic or neuralgic irritation. Whilst this is going on, we should relieve and thoroughly cleanse the stomach and bowels by the exhibition of active cathartic medicines. At the same time remedies should be used to open the gall-ducts and stimulate the liver to activity. We should, in fact, as speedily as possible disembarrass the liver, engorged by the retarded circulation, as well as the stomach and the whole alimentary canal, from all obstructions and disturbing influences. We should at the same time draw off the blood to the extremities, as much as possible, by putting the feet in hot water, and continuing them there for a considerable length of time—adding stimulants, such as salt, mustard, capsicum, red pepper, &c., so as to highly excite the circulation in the feet, ankles, and calves of the legs, and determine the blood to the lower extremities. In this way we shall be able to relieve the large organs from their overload of blood, and to arouse and animate the circulation everywhere. The feet may be kept in the hot water until the circulation through them is thoroughly re-established and a general perspiration produced, but not so as to cause faintness or great prostration. While this is doing, we may give the patient diffusive stimulants, such as will dispel flatus from the stomach, &c., and invigorate and soothe the heart—strengthen and equalize the heart's pulsations, and dispel from the patient the fears and anxieties that always brood over him like a cloud in these attacks. (For a specific statement of the medicines that I employ in this disease, see the second part of this work.) By these means, judiciously employed, the sudden attack of angina pectoris may, in nearly every case, in a moderately short time, be arrested.

We must now adopt such measures and remedies as will prevent a recurrence of the attack. As of special importance, great care should be taken in regard to the diet. The patient may eat moderately of light and digestible food, such as game, venison, &c., if from experience the patient has not found these articles to disagree with

him. Scarcely any solid food should be taken after two o'clock, P. M. in the day, so that when bedtime arrives, the stomach may be clear, or nearly so, of animal food. No fermented liquors, or liquors charged with gas, should ever be taken in this disease; and the utmost care should be exercised to avoid eating any food that may generate gas or air in the stomach. In general, uncooked food or uncooked fruit of any kind should be avoided. Dyspepsia, if present in any form, must be thoroughly relieved. There are very many cases where moderate stimulation—by small quantities of pure rum, gin, or brandy—may be allowed, but only a small amount should be taken. If the patient at any time finds himself greatly exhausted, a little of any one of these liquors may be found extremely useful. Habitual drinking of much liquor, however, should be carefully avoided. The patient should every night on going to bed, take some mild cathartic medicine, of which I know nothing equal to my Cathartic Vegetable Pills, a recipe for making which may be found in the second part of this work. Enough of these pills should be taken at bedtime to move the bowels thoroughly the next morning. The effect of these pills is to stimulate but not to disturb the patient; thus gently exciting the circulation of blood during the hours of sleep. Early in the morning they will operate to evacuate the bowels of their contents, and relieve the stomach of flatus and all superabundant contents, at the same time giving the patient a fine appetite for his breakfast. Over the heart itself he should always keep up a gentle excitement upon the skin by wearing a plaster of Burgundy-pitch, and under this plaster he should have one or two points where the skin is slightly broken and irritated and sore. This may be done by putting one drop of Croton oil upon one point of the surface, and then applying the plaster of pitch over the whole heart. By this the advantages of counter-irritation are secured, and at the same time free perspiration is produced over the part, which will constantly stimulate the heart and draw away from it humor and any causes that may incline to produce disturbed action in it. If at any time these sore spots should become too irritating, they may be covered by a small pledget of dry cotton, and the plaster again placed over this, and a small sore may be made in another point, so that at all times a gentle irritation may be kept up over the region of the heart; not, however, so as to produce great suffering, or to induce much nervousness, or to reduce the strength of the patient.

Excesses of all kinds should be avoided; the patient should be regular in his hours of exercising, eating, sleeping, &c. Crowded assemblages, large gatherings of people, and great personal efforts, either mental or physical, should be entirely avoided.

These means perseveringly continued, with such medicines, diet, &c., as I have here detailed, will, in a great many instances, cure angina pectoris, and prevent a recurrence of the disease after it has once attacked the patient.

I would here remark, that I have sometimes observed much benefit from the use of galvanic plates; one placed over the heart, and the other over the spine opposite to it, and worn constantly night and day. I have in some cases found these plates apparently very useful. Of course in this disease I always employ mechanical remedies—using shoulder-braces, so as to fully enlarge the chest; and if the patient suffers from a weak back, falling bowels, or much sinking feeling at the pit of the stomach, I advise the use of the abdominal supporter. Bathing also may be employed to great advantage—such ablutions as I have before indicated: salt and water, gin and water, alcohol and water—used either hot or cold. The patient should never go under water, and his bathing should be only by ablution. Pure air and out-door exercise should be enjoyed as much as possible. Sedentary occupations, especially if long-continued, should be avoided. A persevering employment of the measures indicated, will in nearly all instances cure and prevent angina pectoris.

DISEASES OF THE HEART MAY BE CURED.

It is a doctrine very generally held both in and out of the medical profession, that organic disease of the heart is necessarily incurable. But this is an error. It is undoubtedly an obstinate form of disease, and requires a particular treatment; but it *may* be cured. I desire to convince the invalid suffering with this complaint, of the truth of what I say: for I think I cannot do him a greater kindness than to remove from his mind the impression, resting like a horrid nightmare upon him, that he has fastened upon him a disorder from which there is no escape, and which inevitably dooms him to death. With this view, and to encourage him to make an effort to obtain relief, I present below three or four letters from those who have been cured of unmistakable heart-disease.

CASE XLI.—*Letter from A. H. W. Vansiclen, Esq.*

"NEW LOTS, LONG ISLAND, N. Y., Feb. 28, 1855.

"DR. S. S. FITCH:

"Dear Sir,—Having suffered exceedingly from that prevalent and truly alarming complaint, disease of the heart, I find words inadequate to express my gratitude for the benefit I have derived from your valuable remedies. As a trifling remuneration for your benevolence and unceasing exertions so freely spent in my behalf, as well as a duty to an afflicted community, I hereby make a public acknowledgment of the facts of my case, knowing of no better method of accomplishing my wishes or desires; and by doing so, can merely add another link to the long chain of testimony already produced in your favor for the treatment of chronic affections. If, however, by this brief communication I should aid or alleviate suffering humanity, and cast a gleam of hope to those similarly afflicted, I shall not entirely fail of the object at which I aim. For years has this disease, with a complication of others, been making its fearful ravages upon my system, and picturing to me time after time (the only encouragement or consolation to be derived from a vast majority of the medical faculty) that of death in one or another of its forms. I have been so reduced or debilitated as to be confined to the house for months at a time, and frequently to my bed. I have been under the treatment of various physicians, all of whom arrived at nearly the same conclusion, and left me, with the most terrible forebodings, to my fate. At present I am better than I have been for years, and every thing seems to indicate a steady course of improvement, so that I am led to believe that, with the blessing of God, I may yet walk the rosy path of life, so long to me unknown. To those that are suffering with this fearful malady, without being able to obtain relief, I would say, submit to the treatment of Dr. Fitch, and you will soon be convinced of the superiority and efficacy of his practice. It nevertheless requires unceasing care and good judgment on the part of the patient, and a strict compliance with his counsel or advice. And now, as I sincerely believe that you have been the instrument, through a kind Providence, of restoring me to my present comfortable condition, permit me, therefore, to hope that you may have health and happiness beyond the average period allotted to man

on earth, and that you may benefit many a desponding sufferer as greatly as you have me. I will close with my ardent wishes for your welfare and prosperity. Respectfully yours,

"A. H. W. VANSICLEN."

CASE XLII.—*Letter from Mrs. S. Lock, of Michigan.*

"SANILAC CO., WONICOT P. O., MICHIGAN NORTH, Feb. 8, 1857.

"DR. S. S. FITCH:

"Dear Sir,—I do really desire that every one of the thousands who are suffering from disease of the heart, may be made acquainted with the fact that you can cure it. About nine months ago I applied to you, after having read your lectures, by letter, with a disease of the heart, which had been pronounced incurable by the best physicians in this part of the State. I have been severely afflicted, for the last five years, with the most distressing palpitation of the heart, with terrible pain in the side and chest at times. I had turns of fainting, when the heart would beat for a time most violently, and then cease altogether for a while; after which I would be entirely helpless. Two years ago I was so near gone, that for about three months I was almost daily expected to depart this life. I had given up all hopes of ever recovering again to a state of health, when I was induced to apply to you. I received your medicines about seven months ago, and, after taking them according to your directions, I have been restored to quite good health, for which I feel very thankful to you and a kind Providence, and I hope that your days on earth may be many and happy; and if I should never have the pleasure of seeing you on earth, I hope to meet you in heaven, where sickness, pain, and death are felt and feared no more.

"Truly yours,

"MRS. S. LOCK.

"P. S. I was very badly bloated around the chest, and in twelve weeks I shrunk twelve inches. You are at liberty to make such use as you please of this letter."

"DR. S. S. FITCH, 714 Broadway, New York:

"Dear Sir,—After my best respects to you, &c., &c., I hereby certify that I am personally acquainted with Mrs. Lock. She lives in

sight of my door. She had your medicine of me. It has had the desired effect of restoring her to health. I therefore testify to the truth of the within written. Yours respectfully,

"Rev. Abraham Sloat."

Case XLIII.—*Letter from Mrs. M. H. Valentine, of Brooklyn.*

"South Brooklyn, July 16, 1856.

"Dear Dr. Fitch:

"You to whom I owe so much of my health and happiness, words can but feebly express my feelings, yet I cannot refrain from addressing you, to assure you what my gratitude must be in future.

"About six months previous to the date at which I commence this letter, I was severely afflicted with what I supposed to be disease of the heart. I had tried every thing I could hear of, together with the advice of one of the best physicians in the city, until I was satisfied I had done much to my injury to obtain a temporary relief. In this state of suffering I came to you for advice, which you gave with such calm confidence, it encouraged me, and sustained me, or, rather, seemed to quiet me, for in my weak and highly excitable state, the barest possibility of relief acted as a stimulant, and seemed to arouse every nerve within me. I willingly submitted myself to your treatment, and soon experienced its magic effects. I can truly say I have not enjoyed such uninterrupted health for many years. In skill and science, I am sure you have no equal. I have read your book of Lectures with peculiar pleasure, which I recommend most cordially, and particularly admire the liberal and generous tone, so free from any thing like professional exclusiveness. I have endeavored to be as brief as possible. Permit me, therefore, to hope you will have health and happiness, beyond the reach of want, for the rest of your life, to compensate you for your benevolence and energy so freely spent in the public service. Yours, truly and sincerely,

"Mrs. M. H. Valentine."

This lady, when she came to me, was not expected to live three months.

Case XLIV.—*Letter from Mrs. E. K. Clements, of Pa.*

"Stroudsbury, Monroe Co., Pa., Feb. 23, 1854.

"Dr. S. S. Fitch:

"Dear Sir,—It will be three years next winter since I called to see you. I was then pronounced in the last stage of the heart-disease by the physicians of this place. They said that there was no cure for me. I was then induced by the entreaties of my husband to go and see you, yet with very little hope of being cured. You gave me remedies, &c., which I took, and followed your directions to the letter; and in six months time I could say, 'I am well.' I could sleep as sweetly as a little babe, and on my left side as well as my right, which I could not do for years previous.

* * * * * * *

"Since my cure of the heart-disease, many have been induced to try you, and several more are going to see you this spring. Our doctors *must* and *do* acknowledge that you can cure that disease.

"Yours truly,

"Elizabeth K. Clement."

Case XLV.—*Letter from Geo. S. Parker, Esq., of Ill.*

"Pecatonica, Winnebago Co., Ill., June 10, 1855.

"Dr. S. S. Fitch:

"Dear Sir,—I have delayed writing to you longer than I intended. I have to congratulate both you and myself on the good effects your medicine has had on myself; as at the time I received it, my case was considered hopeless by my friends and one of the best physicians, and that a frost or two would number my days, if not before. But, thanks to a kind Providence, through your means I am better than I have been for nearly two years; the only symptom of disease left is, once in a day or two days, a little disagreeable feeling or flutter of the heart. I have tried to obtain another bottle of Heart Corrector of your agents, but they are all out at present. I think another bottle would effect a permanent cure. I finished taking your medicine about a week ago, and have been the longest without medicine that I have been for a year and a half.

"Respectfully yours,

"Geo. S. Parker."

CHAPTER XXVIII.

DYSPEPSIA.

By the term *dyspepsia*, I intend what may be properly designated as *chronic indigestion*—such a change in the structure or functions of the organs employed in converting food into blood, as disqualifies them from completely performing their office. A person may swallow indigestible food, or food in too large a quantity, or he may be exhausted by over-exertion, or be violently agitated mentally—and in consequence, the process of digestion may be suspended or impaired. This temporary derangement would be correctly termed *indigestion*, but not properly *dyspepsia*. It is when indigestion has become chronic or habitual, that it is dyspepsia: I therefore say, dyspepsia is *chronic indigestion*.

Digestion is a term used to designate a series of processes in the stomach and bowels, by which our food is prepared to be received into the blood for the nourishment and nutrition of the body; and also that by which the nutritious portions are actually taken up from the bowels and conveyed into the blood, and the innutritious or excrementitious portions are rejected and cast out of the system. The office performed by the stomach is strictly simply *solution* or dissolving of the food. The term digestion includes this and all the subsequent changes that occur, until the aliment contained in the food finds its way into the general circulation in the blood-vessels. It is in this sense I shall use the word; and by *indigestion*, therefore, is here intended any failure that may take place in the complete and perfect preparation of the food for the nourishment or nutrition of the body, after it has been received into the stomach.

That we may the better understand what dyspepsia is, how it is induced, how it may be avoided, and how cured, we will glance at the process of digestion itself, and the organs engaged in it.

Immediately after the food has been swallowed or deposited in the

stomach, there is poured out from the internal surface of this organ a peculiar fluid called *gastric juice*, which has the power to dissolve the food, reducing it to a whitish, cream-like, semi-fluid mass, called *chyme*. The gastric juice is thus furnished only when called for by the presence of food in the stomach, and only in sufficient quantities to dissolve the food swallowed. It appears, however, that the solvent power of this *juice*, as well as the capacity of the stomach to secrete it, is limited—a certain quantity being required to dissolve a given quantity of aliment; and after a certain amount has been at any one time secreted, the secretion being suspended, even although there should be food present still undissolved; so that if more food is taken at any time than is required by the wants of the body, a portion is liable to remain undigested in the stomach, or to pass out of it in a crude state, unfitted for nourishing the system. I should add, that while this process of solution is going on, the stomach, by a sort of peristaltic motion—an alternate contraction and dilation of its walls—keeps up a sort of churning movement, which throws its contents from side to side, tending intimately to mingle the food with the gastric juice, thus aiding its solution.

After the food has been dissolved and converted into chyme, as described, it passes out of the stomach, through an opening or duct in the right extremity of it, called the *pylorus*, or *pyloric orifice*, into the "second stomach," or *duodenum*. Here it is met by the *bile*, which is furnished from the *gall-bladder* in the liver, and poured into the *duodenum* through a small tube called the *gall-duct*. It also here receives a peculiar fluid called the *pancreatic juice*—a fluid resembling the saliva of the mouth, and supplied by a large gland lying back of the stomach, called the *pancreas*. The mingling of the bile and the pancreatic juice with *chyme*, converts it into *chyle*, and is a most important part of the process of digestion, as will be apparent from one or two facts:—The gastric juice being somewhat acid, the chyme, as it leaves the stomach, composed as it is of this juice and the food in a state of solution, has an acid character; and to prepare it for the action of the organs of absorption, assimilation, and nutrition, it is necessary that its acidity should be neutralized; otherwise it ferments, causing flatulence, irritation, pain, &c., and is more or less rejected by the system. The bile, however, is *alkaline*, which, mingling with the chyme in the duodenum, neutralizes its acidity, converting it into a bland, mild, neutral fluid, and preparing

it to be kindly received by the absorbents, and welcomed into the life-currents of the body.

In this state the food passes on from the duodenum, through the intestines, by a peculiar motion of the bowels, called a peristaltic movement. Along the surface of the intestines are distributed thousands of little absorbing vessels or tubes, called *lacteals*, their mouths opening into the intestines; and these absorb, or drink up from the chyle, all the nutritious matter it contains, which is thence conveyed by channels provided for the purpose into the current of the blood. Important changes take place in it on its route from the intestines to the blood; but it is not essential to my purpose to notice them here. This is a summary glance at the great leading processes in digestion. There are, of course, many others; but the view I have given is sufficiently complete to enable the reader to understand what I wish to say on dyspepsia.

Now let me say, that whenever there is a failure to perform their offices fully on the part of any of the organs engaged in preparing the food for nutrition,—if the stomach fails to dissolve the food, or the liver to furnish its bile, or the pancreas its juice,—if the intestines are at fault, and the lacteals do not take up the nutriment as they should, or take up what they should reject—then there is *indigestion;* and if this indigestion becomes chronic, we have *dyspepsia.* As will be seen, then, a healthy digestion depends upon (1st) a proper supply (not too much or too little) of nutritious digestible food; (2d) upon the complete mastication of this food before it is swallowed, in order that the gastric juice may easily act upon it; (3d) upon an adequate supply of gastric juice, of a good quality, in the stomach, and the proper peristaltic motion of that organ at the proper time; (4th) upon the due performance by the liver and pancreas of their appropriate offices, in furnishing when needed, the bile and pancreatic juice; and (5th) a prompt discharge of their duty by the intestines, in moving the dissolved food through them, and of the lacteals in taking up the nutriment from the chyle. If *any* of these processes are at fault, then there is indigestion.

As all the vital processes going on in the human body are hidden from our sight, we can usually determine their phenomena and character only by inference and deduction; and with reference to them, we constantly grope more or less in the dark. By a most remarkable accident, however, this process of digestion has been in one in-

stance disclosed to view; and a series of experiments, instituted by a very competent physician, who has given us the results in a most interesting volume. In relation to it, therefore, we can now speak with much certainty, being no longer left to blind conjecture.

In the year 1822, Dr. Wm. Beaumont, a surgeon in the United States army, while stationed at Michilimackinac, Mich., then Michigan Territory, was called upon to attend a Canadian Frenchman, by the name of ALEXIS ST. MARTIN, a *voyageur* in the employ of the American Fur Company, who had been accidentally wounded by the discharge of a musket. As the case is one of the most remarkable of any recorded in the annals of surgery, it will, I think, be interesting to my readers, and I therefore give it in the words of Dr. Beaumont himself:

"The charge, consisting of powder and duck-shot, was received in the left side of the youth, he being at a distance of not more than one yard from the muzzle of the gun. The contents entered posteriorly, and in an oblique direction, forward and inward, literally blowing off integuments and muscles of the size of a man's hand, fracturing and carrying away the anterior half of the sixth rib, fracturing the fifth, lacerating the lower portion of the left lobe of the lungs, the diaphragm, and perforating the stomach.

"The whole mass of materials forced from the musket, together with fragments of clothing and pieces of fractured ribs, were driven into the muscles and cavity of the chest.

"I saw him in twenty-five or thirty minutes after the accident occurred, and, on examination, found a portion of the lung, as large as a Turkey's egg, protruding through the external wound, lacerated and burnt; and immediately below this, another protrusion, which, on further examination, proved to be a portion of the stomach, lacerated through all its coats, and pouring out the food he had taken for his breakfast, through an orifice large enough to admit the forefinger.

"In attempting to return the protruded portion of the lung, I was prevented by a sharp point of the fractured rib, over which it had caught by its membranes; but by raising it with my finger, and clipping off the point of the rib, I was able to return it into its proper cavity, though it could not be retained there, on account of the incessant efforts to cough.

"The projecting portion of the stomach was nearly as large as that of the lung. It passed through the lacerated diaphragm and external wound, mingling the food with the bloody mucus blown from the lungs.

"After cleansing the wound from the charge and other extraneous matter, and replacing the stomach and lungs as far as practicable, I applied the carbonated fermenting poultice, and kept the surrounding parts constantly wet with a lotion of muriate of ammonia and vinegar; and gave internally the aq. acet. am. with camphor, in liberal quantities.

"Under this treatment a strong reaction took place in about twenty-four hours, accompanied with high arterial excitement, fever, and marked symptoms of inflammation of the lining membranes of the chest and abdomen, great difficulty of breathing, and distressing cough.

"He was bled to the amount of eighteen or twenty ounces, and took a cathartic. The bleeding reduced the arterial action, and gave relief. The cathartic had no effect, as it escaped from the stomach through the wound.

"On the 5th day a partial sloughing of the integuments and muscles took place. Some of the protruded portions of the lung and lacerated parts of the stomach also sloughed, and left a perforation into the stomach, plainly to be seen, large enough to admit the whole length of my forefinger into its cavity; and also a passage into the chest, half as large as my fist, exposing to view a part of the lung, and permitting the free escape of air and bloody mucus at every respiration.

"A violent fever continued for ten days, running into a typhoid type, and the wound became very fetid.

"On the eleventh day a more extensive sloughing took place, the febrile symptoms subsided, and the whole surface of the wound assumed a healthy and granulating appearance.

"For seventeen days all that entered his stomach by the œsophagus, soon passed out through the wound; and the only way of sustaining him was by means of nutritious injections per anus, until compresses and adhesive straps could be applied so as to retain his food. During this period no alvine evacuations could be obtained, although cathartic injections were given, and various other means were adopted to promote them.

"In a few days after firm dressings were applied, and the contents of the stomach retained, the bowels became gradually excited, and, with the aid of cathartic injections, a very hard, black, fetid stool was procured, followed by several similar ones; after which the bowels became quite regular, and continued so.

"The cataplasms were continued until the sloughing was completed and the granulating process fully established; and were afterwards occasionally resorted to when the wound became ill-conditioned. The aq. acet. am. with camphor was also continued for several weeks, in proportion to the febrile symptoms and the fetid condition of the wound.

"No sickness, nor unusual irritation of the stomach, not even the slightest nausea, was manifest during the whole time; and after the fourth week the appetite became good, digestion regular, the alvine evacuations natural, and all the functions of the system perfect and healthy.

"By the adhesion of the sides of the protruded portions of the stomach to the pleura costalis and the external wound, a free exit was afforded to the contents of that organ, and effusion into the abdominal cavity was thereby prevented.

"Cicatrization and contraction of the external wound commenced on the fifth week; the stomach became more firmly attached to the pleura and intercostals by its external coats, but showed not the least disposition to close its orifice; this (the orifice) terminated as if by a natural boundary, and left the

perforation, resembling, in all but a sphincter, the natural anus, with a slight prolapsus.

"Whenever the wound was dressed, the contents of the stomach would flow out, in proportion to the quantity recently taken. If the stomach happened to be empty, or nearly so, a partial inversion would take place, unless prevented by the application of the finger. Frequently, in consequence of the derangement of the dressing, the inverted part would be found of the size of a hen's egg. No difficulty, however, was experienced in reducing it by gentle pressure with the finger, or a sponge wet with cold water, neither of which produced the least pain.

"In the seventh week, exfoliation of the ribs, and a separation of their cartilaginous ends, began to take place.

"The sixth rib was denuded of its periosteum for about two inches from the fractured part, so that I was obliged to amputate it about three or four inches from its articulation with the rib. This I accomplished by dissecting back the muscles, securing the intercostal artery, and sawing off the bone with a very fine narrow saw, made for the purpose, introduced between the ribs, without injury to the neighboring parts. Healthy granulations soon appeared, and formed soundly over the amputated end. About half the inferior edge of the fifth rib exfoliated, and separated from its cartilage.

"After the removal of these pieces of bone, I attempted to contract the wound and close the perforation of the stomach, by gradually drawing the edges together with adhesive straps, laid on in a radiated form.

"The circumference of the external wound was at least twelve inches, and the orifice in the stomach nearly in the centre, two inches below the left nipple, on a line drawn from this to the point of the left ilium.

"To retain his food and drinks, I kept a compress and tent of lint, fitted to the shape and size of the perforation, and confined there by adhesive straps.

"After trying all the means in my power for eight or ten months to close the orifice, by exciting adhesive inflammation in the lips of the wound, without the least appearance of success, I gave it up as impracticable in any other way than that of incising and bringing them together by sutures; an operation to which the patient would not submit.

"By the sloughing of the injured portion of the lung, a cavity was left as large as a common-sized teacup, from which continued a copious discharge of pus for three months, when it became filled with healthy granulations, firmly adhering to the pleura, and soundly cicatrized over that part of the wound.

"Four months after the injury was received, an abscess formed about two inches below the wound, nearly over the cartilaginous ends of the first and second false ribs, very painful, and extremely sore, producing violent symptomatic fever. On the application of an emollient poultice it pointed externally. It was then laid open to the extent of three inches, and several shot and pieces of wad extracted. After which a gum-elastic bougie could be introduced three or four inches in the longitudinal direction of the ribs, towards the spine. Great pain and soreness extended from the opening of the abscess, along the track of the cartilaginous ends of the false ribs, to the spine, with a copious discharge from the sinus.

"In five or six days there came away a cartilage one inch in length. In six or seven days more, another, an inch and a half long; and in about the same length of time, a third, two inches long, were discharged. And they continued to come away every five or six days, until *five* were discharged from the same opening, the last three inches in length. They were all entire, and evidently separated from the false ribs.

"The discharge, pain, and irritation, during the four or five weeks these cartilages were working out, greatly reduced the strength of the patient, produced a general febrile habit, and stopped the healing process of the original wound.

"Directly after the discharge of the last cartilage, inflammation commenced over the lower end of the sternum, which, by the usual applications, terminated in a few days in a large abscess, and from which, by laying it open two inches, I extracted another cartilage, three inches in length. The inflammation then abated; and in a day or two another piece came away, and the discharge subsided.

"To support the patient under all these debilitating circumstances, I administered wine, with diluted muriatic acid, and thirty or forty drops of the tincture of asafœtida, three times a day; which appeared to produce the desired effect, and very much improved the condition of the wound.

"On the third of January, 1823, I extracted another cartilage from the opening over the sternum, an inch and a half long; and on the fourth another, two inches and a half in length, an inch broad at one end, and narrowing to less than half an inch at the other. This must have been the ensiform cartilage of the sternum. After this the sinus closed, and there was no return of inflammation.

"From the month of April, 1823, at which time he had so far recovered as to be able to walk about and do light work, enjoying his usual good appetite and digestion, he continued with me, rapidly regaining his health and strength.

"By the 6th of June, 1823, one year from the time of the accident, the injured parts were all sound and firmly cicatrized, with the exception of the aperture in the stomach and side. This continued much in the same situation as it was six weeks after the wound was received. The perforation was about two and a half inches in circumference, and the food and drinks constantly exuded, unless prevented by the tent, compress, and bandage.

"From this time he continued gradually to improve in health and strength, and the newly-formed integuments over the wound became firmer and firmer. At the point where the lacerated edges of the muscular coat of the stomach and intercostal muscles met and united with the cutis vera, the *cuticle* of the external surface and the *mucous membrane* of the stomach *approached* each other very nearly. They did not unite like those of the lips, nose, &c., but left an intermediate marginal space, of appreciable breadth, completely surrounding the aperture. This space is about a line wide; and the cutis and nervous papillæ are unprotected, as sensible and irritable as a blistered surface abraded of the cuticle. This condition of the aperture still continues, and constitutes the principal and almost only cause of pain or distress experienced

from the continuance of the aperture, the introduction of instruments, &c., in the experiments, or the exudation of fluids from the gastric cavity.

"Frequent dressings with soft compresses and bandages, were necessarily applied to relieve his sufferings and retain his food and drinks, until the winter of 1823–4. At this time a small fold or doubling of the coats of the stomach appeared, forming at the superior margin of the orifice, slightly protruding, and increasing till it filled the aperture, so as to supersede the necessity for the compress and bandage for retaining the contents of the stomach. This valvular formation adapted itself to the accidental orifice, so as completely to prevent the efflux of the gastric contents when the stomach was full, but was easily depressed with the finger.

"In the spring of 1824 he had perfectly recovered his natural health and strength; the aperture remained; and the surrounding wound was firmly cicatrized to its edges.

"In the month of May, 1825, I commenced my first series of gastric experiments with him, at Fort Mackinac, Michigan Territory. In the month of June following I was ordered to Fort Niagara, N. Y., where, taking the man with me, I continued my experiments until August. Part of these experiments were published in 1826, in the 29th number of the Philadelphia 'Medical Recorder,' conducted by Doctor Samuel Calhoun. About this time (August, 1825), I took St. Martin with me to Burlington, Vermont, and from thence to Plattsburgh, New York. From the latter place he returned to Canada, his native place, without obtaining my consent.

"Being unable to ascertain the place of his resort, I gave him up as a lost subject for physiological experiments, and returned to my post at the West again. I did not, however, remit my efforts to obtain information of his place of residence and condition.

"He remained in Canada four years, during which period he married, and became the father of two children; worked hard to support his family, and enjoyed robust health and strength. In 1825, as he has informed me, he engaged with the Hudson Bay Fur Company, as a voyageur to the Indian country. He went out in 1827, and returned in 1828; and subsequently labored hard to support his family until 1829.

"Accidentally learning about this time where he was, and that he enjoyed perfect health, I made arrangements with the agents of the American Fur Company, who annually visited Canada for the purpose of procuring voyageurs, to find and engage him for my service, if practicable. After considerable difficulty, and at great expense to me, they succeeded in engaging him, and transported him from Lower Canada, with his wife and two children, to me, at Fort Crawford, Prairie du Chien, Upper Mississippi, a distance of nearly two thousand miles, in August, 1829. His stomach and side were in a similar condition as when he left me in 1825. The aperture was open, and his health good.

"He now entered my service, and I commenced another series of experiments on the stomach and gastric fluids, and continued them, interruptedly, until March, 1831. During this time, in the intervals of experimenting, he performed all the duties of a common servant—chopping wood, carrying bur-

dens, &c.—with little or no suffering or inconvenience from his wound. He labored constantly, became the father of more children, and enjoyed as good health and as much vigor as men in general. He subsisted on crude food, in abundant quantities, except when on prescribed diet for particular experimental purposes, and under special observance.

"In the spring of 1831, circumstances made it expedient for him to return with his family from Prairie du Chien to Lower Canada again. I relinquished his engagements to me for the time on a promise that he would return when required, and gave him an outfit for himself, wife, and children. They started in an open canoe, via the Mississippi, passing by St. Louis, Mo., ascended the Ohio River, then crossed the State of Ohio to the Lakes, and descended the Erie, Ontario, and the River St. Lawrence to Montreal, where they arrived in June. He remained in Canada with his family until October, 1832, in good health and at hard labor. He was in the midst of the cholera epidemic at the time it prevailed, and passed through Canada, and withstood its ravages with impunity, while hundreds around him fell sacrifices to its fatal influence.

"In November, 1832, he again engaged himself to me for twelve months, for the express purpose of submiting to another series of experiments. He joined me at Plattsburgh, N. Y., and travelled with me to the city of Washington, where, with the facilities afforded by the head of the Medical Department, the experiments were continued upon him from November 1832, to March 1833.

"During the whole of these periods, from the spring of 1824 to the present time, he has enjoyed *general* good health, and perhaps suffered much less predisposition to disease than is common to men of his age and circumstances in life. He has been active, athletic, and vigorous; exercising, eating, and drinking like other healthy and active people. For the last four months he has been unusually plethoric and robust, though constantly subjected to a continued series of experiments on the interior of the stomach; allowing to be introduced or taken out at the aperture different kinds of food, drinks, elastic catheters, thermometer tubes, gastric juice, chyme, &c., almost daily, and sometimes hourly.

"Such have been this man's condition and circumstances for several years past; and he now enjoys the most perfect health and constitutional soundness, with every function of the system in full force and vigor.

"*Mode of extracting the Gastric Juice.*—The usual method of extracting the gastric juice for experiment, is by placing the subject on his right side, depressing the valve within the aperture, introducing a gum-elastic tube, of the size of a large quill, five or six inches into the stomach, and then turning him on the left side, until the orifice becomes dependent. In health, and when free from food, the stomach is *usually* entirely empty, and contracted upon itself. On introducing the tube, the fluid soon begins to flow, first by drops, then in an interrupted, and sometimes in a short continuous stream. Moving the tube about, up and down, or backwards and forwards, increases the discharge. The quantity of fluid ordinarily obtained is from four drachms to one and a half or two ounces, varying with the circumstances and condition of the stomach. Its extraction is generally attended by that peculiar sensation at

the pit of the stomach, termed sinking, with some degrees of faintness, which renders it necessary to stop the operation. The usual time of extracting the juice is early in the morning, before he has eaten, when the stomach is empty and clean.

"On laying him horizontally on his back, pressing the hand upon the hepatic region, agitating a little, and at the same time turning him to the left side, bright yellow bile appears to flow freely through the pylorus, and passes out through the tube. Sometimes it is found mixed with the gastric juice without this operation. This is, however, seldom the case, unless it has been excited by some other cause.

"The chymous fluids are easily taken out by depressing the valve within the aperture, laying the hand over the lower part of the stomach, shaking a little, and pressing upwards. In this manner, any quantity necessary for examination and experiment can be obtained.

"*Valve.*—The valve mentioned above is formed by a slightly inverted portion of the inner coats of the stomach, fitted exactly to fill the aperture. Its principal and most external attachment is at the upper and posterior edge of the opening. Its free portion hangs pendulous, and fills the aperture when the stomach is full, and plays up and down, simultaneously with the respiratory muscles, when empty.

"On pressing down the valve when the stomach is full, the contents flow out copiously. When the stomach is nearly empty and quiescent, the interior of the cavity may be examined to the depth of five or six inches, if kept distended by artificial means; and the food and drinks may be seen entering it, if swallowed at this time, through the ring of the œsophagus. The perforation through the walls of the stomach is about three inches to the left of the cardia, near the left superior termination of the great curvature. When entirely empty, the stomach contracts upon itself, and sometimes forces the valve through the orifice, together with an additional portion of the mucous membrane, which becomes completely inverted, and forms a tumor as large as a hen's egg. After lying on the left side and sleeping a few hours, a still larger portion protrudes, and spreads out over the external integuments five or six inches in circumference, fairly exhibiting the natural rugæ, villous membrane, and mucous coat, lining the gastric cavity. This appearance is almost invariably exhibited in the morning, before rising from his bed."

With a subject thus wonderfully prepared for investigating the operations of the stomach—being able actually to look into it, to see the process of digestion going on, to put food in and take it out at pleasure, and to remove the gastric juice from the stomach and test its nature out of the stomach—Dr. Beaumont conducted, for several months, a series of very interesting experiments. They were directed principally to determining what office the stomach performed in digestion, the properties of the gastric juice, the effect produced on the stomach itself by various agents—food, medicines, stimulants, nar-

eoties, alcohol, &c.—and the eomparative digestibility of different kinds of food. Among the important faets established by them, I will mention the following:—That the food is simply dissolved and converted into a kind of milky fluid in the stomaeh, and that this is done through the ageney of the gastrie juice; that this juiee is furnished only when food is present to excite its seeretion, and that at all other times there is little or none in the stomach; that most stimulants, and particularly *alcohol*, inflame and weaken the digestive power of the stomaeh; that when too much food is taken—more than the waste of the system requires—the stomaeh is overtaxed, and refuses to digest readily the surplus, which often lies for hours in it undissolved, fermenting, and beeoming irritating and mischievous, &e. He gives the result of his experiments upon the eomparative digestibility of different kinds of food, which I will presently eopy. I will here present to the reader some extraets from Dr. Beaumont's "*Preliminary Remarks*," with which he prefaees a history of his experiments, and in whieh he embodies many interesting faets, and the conelusions to whieh his experiments conduoted him.

"OF DIGESTION BY THE GASTRIC JUICE.

"Chymification is effected in the stomach. It is the first stage, proper, of the conversion of aliment into blood; though in the ordinary course of proceeding, as animals are constituted, some previous steps are necessary. After the aliment has been received into the stomach, it is subjected to certain evolutions or motions, propagated by the muscular fibres of that organ; and is acted upon through the agency of some principle, which changes it from a heterogeneous mixture of the various kinds of diet, submitted to its action, to a uniform, homogeneous semi-fluid, possessing properties distinct from the elements of which it was composed. The length of time consumed in the operation is various. It depends upon the quantity or quality of the ingestæ, the healthy or diseased state of the stomach, &c. In the various experiments which I have made, the medium time may be calculated at about three and a half hours.

"It has been suggested by many physiologists, and positively asserted by some, that there is considerable increase of the temperature of the stomach during the digestion of a meal. But from the result of a great number of experiments and examinations, made with a view of ascertaining the truth of this opinion, in the empty and full state of the organ, and during different stages of chymification, I am convinced that there is no alteration of temperature, unless some other circumstance should produce it. Active exercise always elevates the temperature of the stomach, whether fasting or full, about one and a half degrees.

"With respect to the agent of chymification, that principle of life which converts the crude aliment into chyme, and renders it fit for the action of the hepatic and pancreatic fluids, and final assimilation and conversion into the fluids, and the various tissues of the animal organism—no part of physiology has, perhaps, so much engaged the attention of mankind and exercised the ingenuity of physiologists.

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"By far the most respectable and intelligent physiologists have now settled down in the belief that chymification is effected in the stomach by a peculiar and specific solvent, secreted in that organ, called, after Spallanzani, the Gastric Juice. From the difficulty, however, of obtaining and submitting such fluid to the test of experiment, and the diversity of results in the examination of such as has been obtained, much indefiniteness is experienced on this subject. The presence of an active solvent is rather an admission on their part—a conclusion from the effect to the cause.

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"The gastric juice appears to be secreted from numberless vessels, distinct and separate from the mucous follicles. These vessels, when examined with a microscope, appear in the shape of small lucid points, or very fine papillæ, situated in the interstices of the follicles. They discharge their fluid only when solicited to do so, by the presence of aliment, or by mechanical irritation.

"Pure gastric juice, when taken directly out of the stomach of a healthy adult, unmixed with any other fluid, save a portion of the mucus of the stomach, with which it is most commonly, and perhaps always combined, is a clear, transparent fluid, inodorous, a little saltish, and very perceptibly acid. Its taste, when applied to the tongue, is similar to thin mucilaginous water, slightly acidulated with muriatic acid. It is readily diffusible in water, wine, or spirits—slightly effervesces with alkalies, and is an effectual solvent of the *materia alimentaria.* It possesses the property of coagulating albumen in an eminent degree; is powerfully antiseptic, checking the putrefaction of meat; and effectually restorative of healthy action when applied to old, fetid sores, and foul, ulcerating surfaces.

"Saliva and mucus are sometimes abundantly mixed with the gastric juice. The mucus may be separated by filtering the mixture through fine linen or muslin cambric. The gastric juice and part of the saliva will pass through, while the mucus, and spumous or frothy part of the saliva, remains on the filter. When not separated by the filter, the mucus gives a ropiness to the fluid that does not belong to the gastric juice, and soon falls to the bottom in loose, white flocculi. Saliva imparts to the gastric juice an azure tinge and frothy appearance; and, when in large proportion, renders it fetid in a few days; whereas the *pure* gastric juice will keep for many months without becoming fetid.

"The gastric juice does not accumulate in the cavity of the stomach until alimentary matter be received, and excite its vessels to discharge their contents for the immediate purpose of digestion. It then begins to exude from its proper vessels, and increases in proportion to the quantity of aliment *naturally* required and received. A definite proportion of aliment only can be

perfectly digested in a given quantity of the fluid. From experiments on artificial digestion, it appears that the proportion of juice to the ingestæ is greater than is generally supposed. Its action on food is indicative of its chemical character. Like other chemical agents, it *decomposes*, or *dissolves*, and combines with, a fixed and definite quantity of matter, when its action ceases. When the juice becomes *saturated*, it refuses to dissolve more; and, if an excess of food have been taken, the residue remains in the stomach, or passes into the bowels, in a crude state, and frequently becomes a source of nervous irritation, pain, and disease for a long time, or until the *vis medicatrix naturæ* restores the vessels of this viscus to their natural and healthy actions —either with or without the aid of medicine.

"Such are the appearance and properties of the gastric juice, though it is not always to be obtained pure. It varies with the changing condition of the stomach. These variations, however, depend upon the admixture of other fluids, such as saliva, water, mucus, and sometimes bile, and perhaps pancreatic juice. The special solvent itself—the *gastric juice*—is, probably, invariably the same substance. Derangement of the digestive organs, slight febrile excitement, fright, or any sudden affection of the passions, cause material alterations in its appearance. Overburdening the stomach produces acidity and rancidity in this organ, and retards the solvent action of the gastric juice. General febrile irritation seems entirely to suspend its secretion into the gastric cavity, and renders the villous coat dry, red, and irritable. Under such circumstances it will not respond to the call of alimentary stimulus. Fear and anger check its secretion, also: the latter causes an influx of bile into the stomach, which impairs its solvent properties.

"When food is received into the stomach, the gastric vessels are excited by its stimulus to discharge their contents, when chymification commences. It has been a favorite opinion of authors, that food, after it has been received into the stomach, should 'remain there a short period before it undergoes any change:' the common estimate is one hour. But this is an erroneous conclusion, arising from inaccuracy of observation. Why should it remain there unchanged? It has been received into the organ which is to effect an important change upon it—the gastric juice is ready to commence its work of solution soon after the first mouthful is swallowed; and, certainly, if we admit that the gastric juice performs the office of a chemical agent, which most physiologists allow, it is contrary to all our notions of chemical action to allow it one moment to rest. It must commence its operation immediately. That it does so, is distinctly manifested by close observation of its action on food in the healthy stomach.

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"It has been said, that when one meal follows another in quick succession; or, in other words, when a subsequent meal is taken before the previous one is digested, that it *somehow* disturbs the process of digestion. This is generally true; and it allows of a definite solution. It is because more is received into the stomach, in the aggregate, than the gastric juice can dissolve. And this disturbance will result as well when too much food has been taken at once, as when too much has been received in rapid succession. But if the

quantity be moderate, no ill effect will ensue. Many children are in the habit of eating as often as once an hour through the day, in small quantities, without experiencing any bad consequences. Cooks are also accustomed to the practice of constantly tasting of the various articles of food which they are preparing for the table; and yet I am not aware that they suffer any inconvenience from the habit. From these and other facts, as well as from direct experiment, I think it is perfectly apparent that digestion must progress as well before as after the expiration of an hour.

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"On the subject of exercise or repose, during the digestion of a meal, there has been some diversity of opinion. It has generally been conceded, however, that a state of repose is most favorable to chymification. It has been said that, during the digestion of aliment, the *energies* of the system were centred on the stomach, and should not be withdrawn to any distant part; that the stomach becomes a 'centre of fluxion,' &c., &c. I protest, again, against the use of terms which have no definite meaning. I believe the benefits of science will be better subserved by adhering to facts and the deductions of experiment, than by the propagation of hypotheses founded on uncertain data. From numerous trials, I am persuaded that moderate exercise conduces considerably to healthy and rapid digestion. The discovery was the result of accident, and contrary to preconceived opinions. I account for it in the following way. Gentle exercise increases the circulation of the system and the *temperature* of the stomach. This increase of temperature is generally about one and a half degrees. Now, if the gastric juice be a solvent, its action is similar to other chemical solvents, and its rapidity is increased in proportion to the elevation of temperature. Of the reason, I leave others to judge. The effect is certain. Severe and fatiguing exercise, on the contrary, retards digestion. Two reasons present themselves for this—the debility which follows hard labor, of which the stomach partakes; and the depressed temperature of the system, consequent upon perspiration and evaporation from the surface.

"Exercise, sufficient to produce moderate perspiration, increases the secretions from the gastric cavity, and produces an accumulation of a limpid fluid within the stomach, slightly acid, and possessing the solvent properties of the gastric juice in an inferior degree. This is probably a mixed fluid, a small proportion of which is gastric juice.

"Bile is not essential to chymification. It is seldom found in the stomach, except under peculiar circumstances. I have observed that when the use of fat or oily food has been persevered in for some time, there is generally the presence of bile in the gastric fluids. Whether this be a pathological phenomenon, induced by the peculiarly indigestible nature of oily food; or whether it be a provision of nature, to assist the chymification of this particular kind of diet, I have not as yet satisfied myself. Oil is affected by the gastric juice with considerable difficulty. The alkaline properties of the bile may render it more susceptible of solution in this fluid, by altering its chemical character. Irritation of the pyloric extremity of the stomach with the end of the elastic tube or the bulb of the thermometer, generally occasions a flow of bile into this organ. External agitation, by kneading with the hand on the right side,

over the regions of the liver and pylorus, produces the same effect. It may be laid down as a general rule, however, subject to the exceptions above mentioned, that bile is not necessary to the chymification of food in the stomach.

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"The resulting compound of digestion in the stomach, or *chyme*, has been described as 'a homogeneous, pultaceous, grayish substance, of a sweetish, insipid taste, slightly acid,' &c. In its *homogeneous* appearance, it is invariable; but not in its *color*—that partakes very slightly of the color of the food eaten. It is always of a lightish or grayish color; varying in its shades and appearance, from that of cream, to a grayish or dark-colored gruel. It is also more consistent at one time than at another—modified, in this respect, by the kind of diet used. This circumstance, however, does not affect its homogeneous character. A rich and consistent quantity is all alike, and of the same quality. A poorer and thinner portion is equally uniform in its appearance. Chyme from butter, fat meats, oil, &c., resembles rich cream. That from farinaceous and vegetable diet has more the appearance of gruel. It is invariably distinctly acid.

"The passage of chyme from the stomach is gradual. Portions of chyme, as they become formed, pass out, and are succeeded by other portions. In the early stages, the passage of the chyme into the duodenum is more slowly effected than in the latter stages. At first it is more mixed with the undigested portions of aliment, and is probably separated with considerable difficulty by the powers of the stomach. In the later stages, as the whole mass becomes more chymified and fitted for the translation, the process is more rapid; and is accelerated by a peculiar contraction of the stomach, a description of which will be found in the next section. It appears to be a provision of nature, that the chyme, towards the latter stages of its formation, should become more stimulating, and operate on the pyloric extremity of the stomach, so as to produce this peculiar contraction.

"After the expulsion of the last particles of chyme, the stomach becomes quiescent, and no more juice is secreted until a fresh supply of food is presented for its action, or some other mechanical irritation is applied to its internal coat.

"Water and alcohol are not affected by the gastric juice. Fluids of all kinds are subject to the same exemption, unless they hold in solution or suspension some animal or vegetable aliment. Fluids pass from the stomach very soon after they are received, either by absorption or through the pylorus."

Dr. Beaumont describes the appearance of the internal surface of the stomach, both in health and disease—when influenced by stimulants and when digesting ordinary food, &c. On this subject he says:

"The inner coat of the stomach, in its natural and healthy state, is of a light or pale pink-color, varying in its hues according to its full or empty state. It is of a soft or velvet-like appearance, and is constantly covered with a very thin, transparent, viscid mucus, lining the whole interior of the organ.

"Immediately beneath the mucous coat, and apparently incorporated with the villous membrane, appear small, spheroidal, or oval-shaped, glandular bodies, from which the mucous fluid appears to be secreted.

"By applying aliment, or other irritants, to the internal coat of the stomach, and observing the effect through a magnifying glass, innumerable minute lucid points, and very fine nervous or vascular papillæ, can be seen arising from the villous membrane, and protruding through the mucous coat, from which distils a pure, limpid, colorless, slightly viscid fluid. This *fluid*, thus excited, is invariably distinctly acid. The *mucus* of the stomach is less fluid, more viscid or albuminous, semi-opake, sometimes a little saltish, and does not possess the slightest character of acidity. On applying the tongue to the mucous coat of the stomach, in its empty, unirritated state, no acid taste can be perceived. When food, or other irritants, have been applied to the villous membrane, and the gastric papillæ excited, the acid taste is immediately perceptible. These papillæ, I am convinced from observation, form a part of what is called by authors the villi of the stomach. Other vessels, perhaps absorbing as well as secretory, compose the remainder. That same portion of the villi form the excretory ducts of the vessels or glands, I have not the least doubt, from innumerable ocular examinations of the process of secretion of gastric juice. The invariable effect of applying aliment to the internal but exposed part of the gastric membrane, when in a healthy condition, has been the exudation of the solvent fluid from the above-mentioned papillæ. Though the *apertures* of these vessels could not be seen, even with the assistance of the best microscopes that could be obtained; yet the points from which the fluid issued was clearly indicated by the gradual appearance of innumerable, very fine, lucid specks, rising through the transparent mucous coat, and seeming to burst and discharge themselves upon the very points of the papillæ, diffusing a limpid, thin fluid over the whole interior gastric surface. This appearance is conspicuous only during alimentation or chymification. These lucid points, I have no doubt, are the termination of the excretory ducts of the gastric vessels or glands, though the closest and most accurate observation may never be able to discern their distinct apertures.

"The fluid so discharged is absorbed by the aliment in contact, or collects in small drops and trickles down the sides of the stomach to the more depending parts, and there mingles with the food, or whatever else may be contained in the gastric cavity. This fluid, the efficient cause of digestion—the true gastric juice of Spallanzani, I have no doubt—has generally been obtained for experiment by mechanical irritation of the internal coat of the stomach, produced by the introduction of a gum-elastic tube, through which it has been procured.

"The gastric juice never appears to be accumulated in the cavity of the stomach while fasting; and is seldom, if ever, discharged from its proper secerning vessels, except when excited by the natural stimulus of aliment, mechanical irritation of tubes, or other excitants. When aliment is received the juice is given out in exact proportion to its requirements for solution, except when more food has been taken than is necessary for the wants of the system.

"When mechanical irritation by a non-digestible substance, as the elastic

tube, stem of the thermometer, &c, has been used, the secretion is probably less than when the irritation has been produced by such substances as are readily dissolved in the gastric juice. Alimentary stimulus, when taken into the stomach, is diffused over the whole villous surface, and excites the gastric vessels, generally, to excrete their fluids copiously; whereas the irritation of tubes, &c., is local, and produces only a partial excitement of the vessels, and a scanty flow of the gastric juice. Hence, the slowness in obtaining the clear fluid from the empty stomach through the tube. I have never, on numerous trials, been able to obtain, at any one time, more than one and a half or two ounces of this fluid after the stomach had disposed of its alimentary matters, however long the period of abstinence had been. The discharge of this small quantity has generally been excited by the introduction of the tube. Ten, fifteen, or more minutes, were necessary to collect even this small quantity. Whenever fluid was obtained in larger quantity, as was sometimes the case, it invariably contained more than the usual quantity of mucus.

"On viewing the interior of the stomach, the peculiar formation of the inner coats are distinctly exhibited. When empty, the rugæ appear irregularly folded upon each other, almost in a quiescent state, of a pale pink-color, with the surface merely lubricated with mucus. On the application of aliment, the action of the vessels is increased, the color brightened, and the vermicular motions excited. The small gastric papillæ begin to discharge a clear, transparent fluid (the alimentary solvent), which continues abundantly to accumulate as aliment is received for digestion.

"If the mucous covering of the villous coat be wiped off, with a sponge or handkerchief, during the period of chymification, the membrane appears roughish, of a deep pink-color at first; but in a few seconds the follicles and fine papillæ begin to pour out their respective fluids, which, being diffused over the parts abraded of mucus, restore to them their peculiar soft and velvet-like coat, and pale pink-color, corresponding with the undisturbed portions of the membrane; and the gastric juice goes on accumulating, and trickles down the sides of the stomach again.

"If the membrane be wiped off when the stomach is empty, or during the period of fasting, a similar roughness and deepened color appear, though in a less degree; and the mucous exudation is more slowly restored. The follicles appear to swell more gradually. The fluids do not accumulate in quantity sufficient to trickle down, as during the time of chymification. The mucous coat only appears to be restored.

"The foregoing I believe to be the natural appearances of the internal coat of the stomach in a healthy condition of the system.

"In disease, or partial derangement of the healthy function, this membrane presents various and essentially different appearances.

"In febrile diathesis, or predisposition, from whatever cause—obstructed perspiration, undue excitement by stimulating liquors, overloading the stomach with food—fear, anger, or whatever depresses or disturbs the nervous system—the villous coat becomes sometimes red and dry, at other times pale and moist, and loses its smooth and healthy appearance; the secretions become vitiated, greatly diminished, or entirely suppressed; the mucous coat

scarcely perceptible; the follicles flat and flaccid, with secretions insufficient to protect the vascular and nervous papillæ from irritation.

"After excessive eating or drinking, chymification is retarded; and although the appetite be not always impaired at first, the fluids become acrid and sharp, excoriating the edges of the aperture; and almost invariably produce aphthous patches, and the other indications of a diseased state of the internal membrane, mentioned above. Vitiated bile is also found in the stomach under these circumstances, and flocculi of mucus are much more abundant than in health.

"Whenever this morbid condition of the stomach occurs, with the usual accompanying symptoms of disease, there is generally a corresponding appearance of the tongue. When a healthy state of the stomach is restored, the tongue invariably becomes clear."

To the following statement of Dr. Beaumont, I wish to call special attention. We find in the appearances here stated by Dr. B. to have been *seen* to exist in the stomach of St. Martin, a most complete demonstration of the doctrine I have taught elsewhere in this book, viz., that the various humors which appear on the surface of the body, are capable of being transferred to, and reproduced on, the internal organs—the lungs, the stomach, the intestines, &c. In this view, the facts given in the annexed paragraphs are exceedingly interesting and important:

"There are sometimes found on the internal coat of the stomach, eruptions, or deep-red pimples; not numerous, but distributed here and there upon the villous membrane, rising above the surface of the mucous coat. These are at first sharp, pointed, and red, but frequently become filled with white purulent matter. At other times, irregular, circumscribed, red patches, varying in size or extent from half an inch to an inch and a half in circumference, are found on the internal coat. These appear to be the effect of congestion in the minute blood-vessels of the stomach. There are also seen at times small aphthous crusts in connection with these red patches. Abrasions of the lining membrane, like the rolling up of the mucous coat into small shreds or strings, leaving the papillæ bare for an indefinite space, is not an uncommon appearance.

"These diseased appearances, when very slight, do not always affect essentially the gastric apparatus. When considerable, and particularly when there are corresponding symptoms of disease—as dryness of the mouth, thirst, accelerated pulse, &c.—no gastric juice can be extracted, not even on the application of alimentary stimulus. Drinks received are immediately absorbed, or otherwise disposed of—none remaining in the stomach ten minutes after being swallowed. Food taken in this condition of the stomach, remains undigested for twenty-four or forty-eight hours, or more, increasing the derangement of the whole alimentary canal, and aggravating the general symptoms of disease."

Here we find *pimples*, *pustules*, *blotches*, and *crusts*, or scales, "breaking out" on the inner surface of the stomach. If these were on the external skin, we should not hesitate for an instant to call them some form of skin disease—the result of humor or poison in the blood. Dr. Beaumont says, when these eruptions appeared in the stomach, digestion was suspended, no gastric juice was secreted, there were dryness of the mouth, heat, thirst, a quickened pulse and derangement of the whole alimentary canal. And when we find, as we often do, that precisely the same symptoms occur in many cases where an external humor or eruption disappears from the surface, is there any room for doubt that it has gone in upon the stomach, and that if we could look into it we should find eruptions there, as did Dr. Beaumont? But there is no reason for supposing that these eruptions are confined to the stomach; they extend to the bowels, the heart, the inner surfaces of the lungs, throat, &c.; and if we could see them, we should observe the same appearances there which Dr. Beaumont found in the stomach of St. Martin. We often see persons troubled with salt-rheum, or *herpes*, *eczema*, *urticaria* (nettle-rash), *roseola*, or some other form of humor, who have good general health so long as the disease continues on the surface, but who, as soon as it disappears, become sick and disturbed in *some way;* perhaps they have a cough, with asthma, short breath, stricture about the chest, pain or burning in some part of the chest, &c.; or they may have obstinate dyspepsia—all food lying heavy and souring on the stomach—with irritation, pain, flatulence, a sinking, prostrated feeling, biliousness, nausea; the bowels being either torpid or greatly relaxed, with wind, colic, &c.; perhaps there will be distressing palpitation of the heart, with general derangement of the circulation. In these cases the humor has determined upon the vital organs somewhere, and is producing the mischief felt. It is only when we fully understand and recognize this view of disease, that we are able to treat these complaints successfully.

PERISTALTIC MOTION OF THE STOMACH.

Dr. Beaumont thus describes what he observed to be the muscular movements of the stomach, which are evidently very important in the process of digestion:

"Its (the stomach's) *motions*, as comprising a part of the process of digestion, I have endeavored to observe as accurately as practicable, and I give the result.

"The human stomach is furnished with muscular fasciculi, so arranged as to shorten its diameter in every direction. By the alternate contraction and relaxation of these bands, a great variety of motion is induced on this organ, sometimes transversely, and at other times longitudinally. These alternate contractions and relaxations, when affecting the transverse diameter, produce what are called *vermicular* or *peristaltic* motions. The effect of the contraction of the longitudinal fibres, is to approximate the splenic and pyloric extremities. When they all act together, the effect is to lessen the cavity of the stomach, and to press upon the contained aliment, if there be any in the stomach. These motions not only produce a constant disturbance, or *churning* of the contents of this organ, but they compel them at the same time to revolve around the interior, from point to point, and from one extremity to the other. In addition to these motions, there is a constant agitation of the stomach, produced by the respiratory muscles.

"These contractions and relaxations of the muscular fasciculi, do not observe any very *exact* mode. Their motions are modified by various circumstances, such as the stimulant or non-stimulant property of the ingestæ, the healthy or unhealthy state of the internal coat of the stomach; by exercise and by repose, &c., &c.

"The ordinary course and direction of the revolutions of the food, are first, after passing the œsophageal ring, from right to left, along the small arch; thence through the large curvature, from left to right. The bolus, as it enters the cardia, turns to the left—passes the aperture, descends into the splenic extremity, and follows the great curvature towards the pyloric end. It then returns, in the course of the smaller curvature, makes its appearance again at the aperture, in its descent into the great curvature, to perform similar revolutions.

"Such I have ascertained to be the revolutions of the contents of the stomach, from being able to identify particular portions of food, and from the fact that the bulb of the thermometer, which has been frequently introduced during chymification, invariably indicates the same movements. These revolutions are completed in from one to three minutes."

My readers will not, I think, be displeased with me for presenting them with these extended extracts from the interesting work of Dr. Beaumont. The annals of our race furnish us with no instance, save this of Alexis St. Martin alone, in which the stomach of a sound, healthy human being has been thrown open to inspection and experiment; and it is not at all probable it will ever occur again. It may be that others may have their stomachs torn open by gun-shots, or in some other way; but that such a calamity will occur to any one possessing the perfect health, the hardy constitution, and the won-

derful reeuperative powers of St. Martin, and that the wound will be made so as to open the stomach in such a manner that it shall heal with a fistulous opening, the chanees are beyond computation against such an event. The observations and experiments of Dr. Beaumont are therefore of singular importanee and interest.

After reading the views now given of the proeess of digestion, we are prepared to understand why indigestion is so very common, as well as why it presents so many and such various phases and symptoms in different individuals, and even in the same individuals at different times. Sometimes the fault is in the stomach—there is too much or too little gastric juice, or it is of a poor quality; or the stomaeh has lost its museular tone and strength, and the food lies still and motionless in it. Then we have wind in the stomach, a dead heavy feeling, pain, sinking, &e. Sometimes the liver is at fault—it is torpid and inactive; the bile is withheld, or is of a vicious quality—or it may be there is a surplus of bile; and there will be fermentation of the food in the duodenum, flatulence, cutting pains, and eostiveness, or irritation of the bowels, with diarrhœa, emaciation, loss of strength, &c. Frequently the stomach is overloaded, or has imposed upon it food that it cannot dissolve, or that is too exciting and irritating, or that is too sedative, paralyzing it more or less. Of eourse, the symptoms in any ease will depend upon the organ or part whieh is at fault—and no two eases will be likely to be preeisely alike.

As I have said, we are prepared to know, without surprise, that indigestion is all but a universal complaint. With our artifieial and enervating habits of living—our omnivorous disposition to eat every thing that pleases our palates, whether digestible or not, and our gormandizing propensity to stuff the stomach beyond the wants of the system—it is not to be wondered at that very few have a perfeetly healthy digestion. It is eertainly a faet that few have: whether they are laborers and others engaged in aetive employment, or those of sedentary or idle habits—whether farmers, mechanies, professional men, or men of no profession—whether rich or poor, high or low—almost everybody suffers more or less from indigestion at one time or another. It is, of course, experieneed more by those who live high and exercise but little. It is distressingly eommon among females; their in-door life and sedentary habits, and, I will add, the never-eeasing cares and anxieties which perpetually press upon a large class of our wives and mothers—a burden whieh, with the usual hab-

its of life of females in this country, is but little counterpoised by relaxation, amusement, or other respite from the monotony of household family duties—especially favor indigestion and dyspepsia.

VARIETIES OF INDIGESTION AND DYSPEPSIA.

As I have before intimated, the forms, phases, conditions, symptoms, and effects of indigestion, both temporary and chronic, are exceedingly numerous and various. This will be readily seen when it is considered that a number of organs, each distinct from all the others in its structure, location, and office, are engaged in digesting the food; that each of these organs is liable to various diseases peculiar to itself; and that if any of them are disordered, *digestion is impaired.* I do not propose, however, to enter at length into a particular description of all the varieties of dyspepsia or indigestion—it would require a volume to do so; but merely to point out the principal *classes*, if I may so term them, or forms, of this disease, into which it is naturally divided. In doing so, I shall remark, *first*, on indigestion caused by disorder of the *stomach; second*, on that caused by disorder of the *liver; third*, on that caused from disorder of the *pancreas; fourth*, on that caused by disorder of the *bowels;* and, *fifth*, on that resulting from the influence exerted upon some one or more of these organs by disease or derangement in other parts of the system. It should be remarked, however, that disorder of any one of these organs seldom occurs alone. Most usually, when one is affected, some one or more of the others suffer with it, and thus result numerous and various complications of dyspeptic symptoms.

INDIGESTION FROM DISORDER IN THE STOMACH.

Passing over the *active* inflammations and the *acute* diseases to which the stomach is subject, as not within the scope of this work, I will notice some of the forms of indigestion, both temporary and protracted, which have their seat in the stomach itself; and,

(1.) *Indigestion from mere debility of the stomach.*—This may manifest itself in a mere *muscular* weakness, by which its peristaltic action is impaired. This action we have seen to be very important in the process of digestion. When it is in any measure suspended, the food, lying inert and motionless in the stomach, is not properly

mingled with the gastric juice, and, of consequence, is slowly dissolved; under these circumstances portions of it may remain a long time—in some cases one to sixty days even—undigested in the stomach, fermenting, becoming sour, greatly irritating the coats of the stomach, and causing pain, evacuations of wind, and a dead, heavy, oppressive sensation at the pit of the stomach; feverishness, thirst, lassitude, prostration of strength, and many other distressing symptoms. Usually, in these cases, the food passes from the stomach more or less undigested and unfitted for nutrition. Then we have generally irritation of the bowels, pain, flatulence, colic, constipation, or diarrhœa, and, if long-continued, emaciation and general prostration.

Or this debility may show itself in a deficiency of gastric juice, or gastric juice of a vicious quality. If this peculiar fluid, the solvent of the food, is not furnished at the proper time in sufficient quantity and of a good quality, then of course mischief ensues. Although the muscular power of the stomach may be unimpaired and the food be ever so much "churned" up and thrown from side to side, it will remain undissolved unless it is brought in contact with the digesting *menstruum*, by which alone it can be dissolved and its chemical character changed. In these cases, we have a more active form of dyspepsia, if I may so express it, than in simple loss of muscular power. The pain is more immediate and violent in the stomach, and it is apt to be felt in the chest, in the left side, in the back, between the shoulders, and across the centre of the body. The person will feel too full, and as though the stomach pressed hard up against the lungs, heart, &c. Often the food is thrown up, and found to be as sweet as when swallowed. There is also a restless, uneasy, nervous feeling, commencing at the stomach and extending throughout the system. The face in some will be pale and sunken, in others flushed and red. Sometimes the hands are cold, at others burning with heat. Often there is severe headache—in some instances protracted and continuous, in others occurring at stated intervals. The appetite is vitiated—sometimes too craving, at others gone entirely. Not unfrequently there is palpitation of the heart, and tendency of the blood to the head. In many, a dry, hacking cough commences sooner or later, with irritation and perhaps soreness of the throat, leading the sufferer to suppose, perhaps, that he has positive disease of these organs. Almost always the liver in these cases is more or less deranged, and, in consequence, there is torpor and sluggishness of the bowels in some,

in others diarrhœa, and in others, again, *both*, alternating with each other.

In this form of indigestion, more or less pain or uneasiness is usually experienced very soon after eating, and the patient feels best when the stomach is empty. In the course of from ten to thirty or forty minutes after taking food, there commences a sense of heaviness at the stomach, soon followed by positive pain—sometimes a dead, aching pain, at others sharp, hard, and cutting. Often this pain seems to change its place from side to side of the stomach, as though a hard substance was being rubbed against its sides and wounding them. Soon there are eructations of the food, often until a great part of the meal eaten is ejected—sometimes, but not usually, accompanied by nausea and retching. In some cases the food is thrown up entirely unchanged; in others it will turn exceedingly sour, sharp, and acrid, so that it scalds and almost excoriates the throat.

Usually, in this disease, there is much depression of spirits; not as much, however, as where the liver is more involved in it. There is often rather a feeling of lassitude, indifference, and absence of all energy and ambition, than of active despondency or hypochondria; more or less irritability, fretfulness, and peevishness are felt.

The two forms of indigestion described, are probably the most common of any; and we find them in all degrees of obstinacy and violence—from a simple temporary attack, passing off with the unwholesome food, the surfeit, or other occasion of it, to seated, long-continued positive dyspepsia—a condition from which only the most skilfully adapted treatment can rescue the patient.

The causes of this *debility* of the stomach are various and exceedingly numerous. The most frequent are *want of exercise and improper diet.* Thus we find sedentary people more liable to it than those who are active. Indeed, a healthy digestion cannot be maintained without a certain amount of exercise; and if, while exercise is neglected, a quantity of food is taken daily, as great as is usually consumed by the same person when actively employed, the stomach is sure to become debilitated, and dyspepsia to follow sooner or later. There is no escape from it. If the quantity and kind of food were always regulated with reference to the exercise taken, and no more consumed than is sufficient to supply the daily waste of the system, sedentary people might retain tolerable health for a long time. But, most unfortunately, guided by a vitiated appetite, such persons al-

most universally eat too much, and stuff the stomach three or four times a day with more food than it can dispose of without daily exercise. Hence the great prevalence of this form of dyspepsia.

Long-continued over-exertion will also induce this debility of the stomach. This, too, reduces the general powers of the system, the digestive organs suffering with the rest. So will a habit of violent exercise immediately after meals; irregularity in taking food; crude, indigestible food; drinking large quantities of fluid with one's meals; a continued use of stimulants, such as alcoholic liquors, strong coffee, much spice, mustard, pepper, &c.; long-continued depression of mind, great mental anxiety, protracted study, the habitual indulgence of a violent temper—all tend to weaken the power of digestion and induce seated dyspepsia. *Fevers*—bilious, typhus, and other forms—which confine the patient to his bed for a long time and reduce greatly the vigor of the system, are a fruitful source of dyspepsia from debility of the stomach. In fact, any cause or influence which breaks down or impairs the vital force of the system has a tendency to induce it.

Children often suffer much from this species of indigestion, where they are allowed, as is too often the case, to eat too much, and of food that is crude, raw, and indigestible; or that is too stimulating and weakening, such as green fruit, uncooked vegetables, candies, sweetmeats, &c. Many suffer terribly during *teething* from this cause; when the irritation of the gums is communicated more or less to the stomach.

INDIGESTION FROM DERANGEMENT OF THE LIVER.

We not unfrequently meet with cases in which the stomach appears to perform its office very well, and yet there is distressing indigestion—perhaps seated dyspepsia. This occurs where the seat of the difficulty is the liver. The food may be readily and completely dissolved in the stomach; but if, after passing out of the stomach into the duodenum, it is not met by the bile from the liver at the proper time, in proper quantities and of a good quality, it immediately ferments, becomes acrid, and irritates the intestines, so as to cause the most distressing pain and fullness, with a long train of unhappy symptoms. It is through the agency of the bile in part that the chyme from the stomach is converted into chyle, and prepared to be

taken up by the lacteals and carried into the blood. If the bile is withheld, or is vicious, this change from chyme to chyle is not effected. The food, in this half-digested state, passes through the intestines unabsorbed; there is costiveness, flatulence, great pain across the centre of the body, a yellow, bilious complexion, a sinking of the strength, and often emaciation. Sometimes, however, the person retains nearly his usual flesh and strength. There is often more or less pain and heat in the right side. For some hour or two after eating the patient usually feels quite well; has no pain in the stomach and no disagreeable sensations—his spirits are buoyant and his strength apparently unimpaired. But at the expiration of some two hours he begins to be sensible of a pain, slight at first, commencing just under the forward ends of the short ribs on the right side. It is a peculiar pain, not exactly sharp and acute, nor yet dull and heavy, but, as it were, a combination of all, with a terrible sinking, prostrating sensation. Soon it extends towards the left side across the centre of the body, until the whole internal viscera seems to be a *mass* of pain. In some cases it becomes almost intolerable, lasting for hours, and perhaps until the next meal is taken. Eating usually stops it, and gives relief until the food eaten has passed out of the stomach, when it again comes on. Alternating between this distress and the intervals of temporary relief, the sufferer often finds his life a burden which he almost desires to throw off. It is this form of dyspepsia that has, most of any, a depressing effect upon the mind. At times the despondency is terrible, not unfrequently leading to suicide. It makes the sufferer morose, cross, dark, gloomy, and most disagreeable, both to himself and to everybody else. In this state he can see nothing in life worth living for: wife, children, home, friends, business—all lose their hold on his affections and interest; he is dissatisfied with every thing; all looks dark and gloomy; the difficulties and duties of life seem insurmountable; mole-hills rise into mountains; prosperity he considers as no longer to belong to him; he is "certainly coming to poverty and want;" he is of "no use, and nobody cares any thing for him;" he is "a cipher, and had better be out of the way;" he distrusts Providence, abandons his religious hopes—religion itself "is a fiction," or, if it is not, he "has and can have no part nor lot in it;" he is testy and quarrelsome; he construes even a pleasant look into an affront, and seems specially commissioned to make himself and all about him as miserable as possible. Indeed,

this dark weight on the spirits is one of the most disagreeable and even distressing features of this form of dyspepsia.

As will have been inferred, this form of indigestion may exist for a time while the stomach is comparatively healthy. But usually, sooner or later, it suffers from the existing disorder, and becomes involved in it. It becomes debilitated and weakened, loses its muscular vigor and its full power to secrete gastric juice; so that, in most instances where the disease is of long standing, there is disorder of both the liver and the stomach, constituting a formidable and obstinate disease. There will of course be, in such cases, a combination and complication of the symptoms peculiar to each.

The causes of *liver dyspepsia* are found in any influences which tend to impair the function of the liver:—habitual surfeiting for a time on gross animal food—particularly fats, drinking much coffee, a bad condition of the skin induced by not bathing it and keeping it clean and its pores open, lack of proper exercise, &c. But one of the most fruitful causes is the injudicious use of mercurials—*calomel*, *blue mass*, &c. These, in their direct action, strongly stimulate the liver, and tend to leave it permanently weakened and torpid. There are thousands of persons who, having taken much of this drug in the early part of their lives, find themselves sinking into dyspepsia between the ages of twenty-five and forty, quite unaccountably to themselves, their friends, and their physicians. The truth is, their livers have been scorched and weakened by mercury; and as soon as any unusual demand is made upon the liver, it breaks down. Then follows the long train of disasters I have described; aggravated often by most injudicious, inappropriate treatment—sometimes even a repetition of this very mercurial course!

There is no class wholly exempt from this disease; but the persons most apt to suffer from it are those who, during their early years, have been accustomed to an active life, and who, at a later period, exchange this for a sedentary one, or one in which they have less exercise, and pass more of their time in-doors. Such persons are apt to carry with them into retirement the same habits of hearty eating and drinking in which they indulged when exercising freely. They have "*good appetites*"—they "eat well," "sleep well," "rest well," "never had a day's sickness;" perhaps it never occurs to them that they can be sick, and they see no reason why they should deny themselves, or curtail their enjoyment to the full of the "bounties of

Providence." But they find out the reason in due time, when they wake up to the realization that they are confirmed dyspeptics. It is perhaps useless to sound a warning in the ears of such persons, and urge them to moderate their diet to conform to their altered habits of life in other respects. It is difficult to convince the robust and healthy of their danger.

INDIGESTION FROM DERANGEMENT OF THE PANCREAS.

It will be recollected that a peculiar fluid is poured into the duodenum and mingled with the food as it comes from the stomach, together with the bile, called the pancreatic juice. This is a limpid fluid, resembling the saliva, which is furnished, as we have seen, from a large gland lying back of the stomach, and is poured out through a small duct into the duodenum. The office of this fluid is supposed to be, and undoubtedly is, to act on the fatty matters in the food, converting them into an emulsion, resembling soap, and thus preparing these matters for absorption into the system. This gland, the pancreas, is subject to a variety of diseases—inflammation, cancer, scirrhus, tumors, &c. When any of these occur, there is of course more or less disturbance of the digestion. But they are not common, and I do not propose to notice them particularly. A more frequent affection of this gland is a simple debility, torpor, or functional disturbance, in which the pancreatic juice is found to be secreted and furnished in insufficient quantities, or of a poor and vicious quality. Where this is the case, the person soon discovers that all kinds of fats—fat pork, beef, or other meats, rich soups, gravies, pastry, &c., &c.—disagree with him. If he confines himself to a farinaceous diet and to lean meats, he has but little trouble; but as soon as his appetite tempts him to a departure from this diet, and he indulges in any thing of an oleaginous character, he has trouble,—sour stomach, wind in the stomach, the throwing up from the stomach of an acrid, fatty fluid, that scalds the throat—flatulence, pain in the stomach, and often in the bowels, and, if the derangement continues any considerable time, great emaciation, a peculiar pale, ness and flabbiness of the face, &c.

INDIGESTION FROM DERANGEMENT OF THE BOWELS.

Chronic indigestion not unfrequently has its seat in the bowels. As we have seen, an important part of digestion is performed in the intestines. The food, after having been dissolved in the stomach and mingled with the bile and pancreatic juice in the duodenum, is submitted to the action of the lacteal absorbents stationed along the route of the intestinal canal which the food is made to travel, by which its alimentary portion is taken up and conveyed into the blood. On the inner surface of the intestines there is also another set of vessels, whose duty it is to secrete and pour into the bowels a peculiar fluid, designed to *lubricate* them, to assist in the easy passage of their contents, and to protect their delicate surfaces from abrasion and injury. Bear in mind, also, that the contents of the bowels are propelled or pushed along through them by a peculiar vermicular or peristaltic motion of the bowels themselves. Now, if these organs become, from any cause, irritated or inflamed, or relaxed, debilitated, and weakened, some one or more of their functions is imperfectly performed. The *lacteals* may not absorb the nutriment, and thus it passes on unappropriated; the secreting vessels may not furnish their lubricating fluid, or may pour it out too copiously; the peristaltic motion may be arrested, &c. If there is a departure from health in any of these respects, there is impaired digestion. There will be chronic constipation, with all its train of evils; or chronic diarrhœa, with its still worse mischiefs; or pain, flatulence, colic, piles, &c. This derangement of the bowels seldom occurs alone. The stomach and the liver are usually more or less involved in the mischief, either primarily or secondarily; and with the symptoms peculiar to derangement of the bowels are generally complicated, to a greater or less degree, those resulting from disorder of other portions of the digestive apparatus.

The unhealthy condition of the bowels I have described, may result from any of a variety of causes. Among these I may enumerate *humor*, repressed or driven in from the surface (a much more common thing than is generally supposed); a common cold, determining upon them and becoming seated there; the repeated or long-continued use of indigestible, too stimulating, badly-cooked, or otherwise improper food; a too sedentary life, with protracted deprivation of active exercise; long-continued and exhausting over-exertion; living

much in a cold, damp, impure, or poisonous atmosphere; also, the relaxation of the abdominal muscles, and consequent *falling of the bowels*. Thousands are suffering with dyspepsia from this last cause, who do not imagine the source of their difficulty. Indeed, it is difficult to find a case of this complaint without falling of the bowels, to a greater or less extent. The symptoms peculiar to this form of the disease, are a distressing, weak, sinking, all-gone feeling at the pit of the stomach, with sometimes a heavy, dragging sensation about the bowels themselves. When these symptoms are present, the sufferer should at once be made aware that there is falling of the bowels, and be induced to adopt means to support them. He can hardly expect permanent relief without doing so.

INDIGESTION FROM DISEASE ELSEWHERE THAN IN THE DIGESTIVE ORGANS.

The digestive organs are necessarily in close sympathetic relation with all parts of the system; and no portion of it can suffer or be diseased without influencing, more or less, the stomach, liver, bowels, &c. I will, however, notice only a few more commonly observed diseases, which, by sympathy or otherwise, induce indigestion and dyspepsia.

(1.) *Indigestion induced by disease of the lungs.*—In consumption, asthma, bronchitis, &c., there is frequently distressing indigestion, occurring, not as the cause, but the consequence, of pulmonary affection. Dyspepsia does, indeed, often cause lung disease. But it is not of this I am now speaking. Disease commencing primarily, and located principally, in the organs of respiration, will induce dyspepsia. When the blood is not fully aerated and vitalized, and the nutrition is imperfectly carried on,—when the blood flows sluggishly, and is charged with a superabundance of carbon, thus clogging and impairing all the functions of the body—particularly diminishing the demand for food,—digestion is apt to be partially or almost totally arrested, and all the disagreeable symptoms of dyspepsia appear. In these circumstances, the most common symptoms are nausea, vomiting of the food, flatulence, acidity of the stomach, pain in the stomach and bowels, constipation and diarrhœa alternating, headache, a coated tongue, dryness of the mouth and throat, capricious appetite, pain between the shoulder-blades and in the left side, emaciation, &c. These symptoms do not, of course, always occur in lung disease, there being cases in which the digestion remains apparently unaf-

feeted. But they are quite common; and when they do occur, they aggravate and complicate the condition of the sufferer, calling for the assiduous attention and urgent efforts of the physician to relieve them.

(2.) *Indigestion induced by disease of the heart.*—Heart complaint, whether functional or organic, is almost always accompanied by more or less indigestion, and not unfrequently it is caused by it. Sometimes, however, it is itself the cause of indigestion. In cases where disease is thrown directly upon the heart, as when rheumatism or humor is transferred to it from other parts of the system, the stomach frequently soon becomes affected. The interrupted circulation, occasioned by the deranged action of the heart, and the consequent diminution of the nervous power in the system, may be felt particularly by the stomach, and digestion become impaired. When it does occur under these circumstances, it is usually felt as a weakness of the stomach, and the symptoms follow which I have before described as incident to this condition. It always aggravates the disorder of the heart, and must have the careful attention both of the patient and physician. Great care must be exercised in regard to diet, and appropriate remedies employed. In this way it may be palliated, but we can hardly hope to *cure* it, except by restoring the heart to a healthy state.

(3.) *Indigestion induced by uterine disease.*—There is a quick and intimate sympathy between the uterus and stomach. Disorder of the former, of whatever form, is almost invariably followed by disturbance of the latter; and there are thousands of cases of obstinate indigestion, attended by all the most distressing symptoms of dyspepsia, which result, unsuspected perhaps by the patient or even by the physician, from uterine disorder. In many of these cases it is not even known that any uterine disease exists—it being completely masked, and exhibiting itself only by dyspepsia, palpitation of the heart, headache, rush of blood to the head, backache, nervousness, &c. I have had many patients who had been long years under treatment for dyspepsia, with scarcely an alleviation of a single symptom, and who were surprised to learn that all their dyspeptic difficulties were referable to a derangement of the female constitution. In these cases, as soon as the uterine difficulty has been conquered, the dyspepsia has disappeared. *Uterine dyspepsia*, as it may be not improperly termed, is often attended by all the distressing symptoms of the various forms I have described—sometimes in combination, and

sometimes alternating with each other. One peculiarity, however, by which it is marked, is the *variableness* of the symptoms and the patient's feelings. Her sufferings are hardly ever, during any two days, alike. In a week's time she will appear to range through the whole scale of dyspeptic misery, each change being, however, in her estimation, from bad to worse, and the impression always predominating that she is by all odds the most miserable creature alive. I need hardly add, that the poor sufferer with this complaint cannot hope for full and permanent relief until the real disease is removed; as it readily may be, in nearly all cases; when the dyspepsia will be found to be cured without further treatment.

(4.) *Indigestion induced by spinal disease.*—As the largest proportion of the nerves of the body are sent off from the spinal column, and as the nerves are the media through which is transmitted the power or force by which not only all muscular motion, but, as well, all the various functions of the system, and every part of it, are accomplished, it will be readily seen that any disease of this spinal cord would be likely to be felt by the organ or part whose nerves originate at or near the seat of such disease. But it often occurs that more or less irritation exists in the spine or at the roots of the nerves, without sufficient pain or soreness being experienced in the back to make the patient aware of its existence; while, at the same time, the most serious disturbance is experienced in the organ or organs supplied by nerves from the seat of the irritation. In this way the stomach often suffers, and most distressing dyspepsia is induced. When thus originating, dyspepsia is of course always obstinate, and refuses to yield to any treatment addressed to the stomach. The irritation of the spine must be subdued before a cure can be hoped for. In all cases where dyspepsia resists every remedy applied to the digestive organs and persistently holds its way, unaffected by any and all modifications of diet, and particularly if there is an irritable condition of the system generally, we should be led to suspect that there is irritation of the spine; and if we make careful examination, we shall usually find conclusive indications of it, in tenderness or soreness, under pressure, at some point along the spine. We should commence at the neck and press with some force along down each side of the spine to the small of the back, when we shall probably find a tender or sore spot. If we do, we may be quite sure that the dyspepsia results from spinal irritation. Of course, remedies and

treatment must now be addressed to the seat of the disease, such as will be adapted to remove the irritation. The back should be rubbed three or four times a day with a gentle counter-irritant, and the rubbing with the hand continued from fifteen to thirty minutes each time. The whole person should be bathed daily in strong salt and water; suitable exercise should be taken every day; the diet should be carefully regulated; and then, by appropriate internal remedies, a cure will usually be soon effected.

(5.) *Indigestion from over-stimulation, long continued, of the brain.*—Distressing dyspepsia is often caused by over-exciting, overworking, and over-stimulating the brain. Excessive and long-continued grief, care, anxiety, or study, will cause it. The ambitious man of ruined fortune, the victim of disappointed affection, the merchant, the stock-broker, the lawyer, the clergyman, the student—the wife and mother, long and heavily pressed by her burden of care or bereavement—all who tax the mind unduly for a length of time without remission or relaxation, are apt to have a species of nervous dyspepsia. In these cases the stomach appears to fail first, the appetite becomes weak and capricious, the stomach rejects food, and when it is forced upon it, does not digest it. The flesh and strength fail, the face is pale and haggard, the eye loses its lustre, the spirits sink, and the sufferer becomes gloomy, morose, and peevish. From this condition there is but one road back to health. The invalid must retrace his steps. He must give his mind relaxation, dismiss his ordinary subjects of thought, engage in some new and pleasant active employment, seek new scenes and see new faces—if possible, leave home, travel, go abroad, and forget himself and his business. His diet must of course be regulated, and such medicinal remedies as his condition calls for, employed. By a proper course and a proper treatment, this species of dyspepsia, though sometimes obstinate, may be cured.

(6.) *Indigestion induced by acute diseases, fevers, &c.*—Dyspepsia is very liable to follow severe attacks of acute disease, such as bilions, typhus, and intermittent fevers, the yellow fever, any of the contagious disorders, cholera, cholera morbus, &c., &c. While the inflammatory stage of any of these complaints continues, digestion is usually nearly or quite suspended, and the whole system is rapidly reduced and its vital powers depressed. If the patient survives and returns to health again, the strength comes back slowly, while the

appetite is generally exceedingly craving. There is now danger that he will eat too much, and thus lay the foundation of chronic indigestion; and if he does not, some of these diseases permanently impair the digestive functions, and leave their victim a dyspeptic. Both the physician and the patient should be on their guard against this result. By careful regulation of the diet, by well-timed and judicious exercise, by bathing and the strictest observance of cleanliness, ventilation of the patient's apartments, regular sleep, &c., &c., the whole system should be conducted back to its natural vigor, and indigestion avoided.

(7.) *Indigestion from humor or skin disease determining upon the digestive organs.*—It is not as generally known as it should be, that very many cases of obstinate and distressing dyspepsia are the result of humor. We have seen that Dr. Beaumont discovered eruptions, blotches, scales or scabs, &c., even in the usually healthy stomach of St. Martin. We often find in those subject to humor or skin disease in some form, that when the external eruption disappears, they become suddenly dyspeptic. The humor has gone in upon the stomach or bowels, or perhaps the liver. We find that as soon as the humor again appears on the surface, they are relieved. Sometimes it becomes chronicly located on the internal organ, and then the patient has fastened upon him obstinate chronic dyspepsia, which refuses to yield to any of the ordinary means employed for this disease. The symptoms which follow such a recession of skin disease do not differ from many other forms of dyspepsia. There is, however, usually a good deal of thirst and heat in the stomach, throat, and mouth. The lips and gums are apt to be a deeper red than natural, with perhaps canker-spots and sores in the mouth, and along down the œsophagus or gullet. When the humor settles on the bowels, it often causes chronic diarrhœa or obstinate costiveness. Before we can cure this form of disease, we must purify the blood, renovate the system, and eradicate the poison which is the cause of the mischief. We shall give relief by bringing the humor to the surface, but it may recede again. It should be entirely eradicated from the system, and the blood should be purified and restored to a healthy condition. Until this is done, we cannot hope permanently to relieve the stomach or rescue the patient from the dyspeptic symptoms under which he suffers.

MEDICAL TREATMENT OF INDIGESTION.

From the view we have now taken of dyspepsia, it need hardly be said that there can be no single specific remedy which will be found effectual for its cure in all cases. It is a disease which springs from such a variety of causes, involves so many organs, is subject to so many complications, and presents such various symptoms, that "specifics" and "cure-alls" are simple impossibilities in its treatment. No two cases will be found to be alike in all respects; and every case must be treated, if treated successfully, with reference to its own peculiar character and symptoms. If the difficulty is in the stomach, we must address our measures to the stomach; if the liver is at fault, and the stomach is only affected sympathetically, this organ must be restored to vigor and health; and so of the bowels, the pancreas, the spine, and the nervous system, &c., &c. If a humor is the source of the mischief, it must be removed. To designate and describe the various medicinal remedies—their proper mode of preparation and administration, demanded in all the varying states, conditions, and complications of this disease, would require a *volume* on Therapeutics. Even if I were to present the reader with such a volume, which it is not my purpose here to do, very much would still depend upon the skill and judgment of the physician and the good sense of the patient. The true source, character, and location of the disease must be accurately ascertained; and then, from the abundant medicinal resources existing in the vegetable and mineral kingdom (more especially the former), such agents must be selected and such combinations made as are most exactly adapted to meet the case and produce the effect desired. Scarcely any two cases will be met with which require or admit of the same treatment or remedies. Hence thousands are grievously disappointed that they are not cured by remedies which they are assured have been entirely successful in relieving others. From what I have said, the reason is obvious.

HYGIENIC TREATMENT OF INDIGESTION.

There are some general hygienic rules which are applicable to nearly or quite all dyspeptics. The first, and perhaps the most important, relates to *exercise*. There is absolutely no substitute for exer-

cise, and all classes of dyspeptics will be benefited by it. From the very laws of our being this is demanded, and we cannot have health without it. Motion—activity—is an indispensable condition of growth, development, and health in the animal organization. This is a universal law. If we violate it, we *must pay* the penalty. It is true that a man *may* have dyspepsia in spite of daily active exercise. But he is *sure* to have it if exercise is altogether neglected. Let the dyspeptic, therefore, set it down as true beyond a peradventure, that he cannot have health so long as he sits in his house, his office, his study, or his shop, lazily brooding and mourning over his wretched condition, or meekly acquiescing in the "dispensations of Providence." Your mourning should take the shape of *repentance* for violating God's laws, written on every muscle and fibre of your body; and you should at once wake up to the fact that the "dispensations of Providence," in your case, are only stripes due to disobedience.

What is the best kind of exercise, will depend in some measure on the circumstances and condition of the dyspeptic. As a general rule, it may be said that exercise engaged in for some object beyond merely "getting exercise" or to "regain health," is always best. Walking, riding, practising with "dumb-bells," running, jumping, or practising any species of gymnastics, merely for the purpose of health, is therefore not as beneficial as some active, agreeable employment, that has an object of its own. Engage in something that shall take your mind off from yourself and fix it on an object to be accomplished, whether it be pleasure or profit.

The mind should be as free as possible from disagreeable care, from anxiety, depression, and gloom. Exhausting mental labor and fatigue should be avoided; seek cheerful, pleasant society, and cultivate a cheerful temper.

Always masticate the food thoroughly.—Few persons are sufficiently aware of the very great importance of thorough mastication of the food. Thousands of cases of dyspepsia originate from simply bolting the food half chewed. It is a most pernicious habit; and no dyspeptic who has contracted it can hope to get well unless he abandons it. Take sufficient time to eat and chew every mouthful until it is completely broken down and divided before swallowing it. There are many suffering from dyspepsia who would recover their health by only observing this rule. Recollect that the first step in the process of digestion, is the dissolving of the food in the stomach; that

this is accomplished by the gastric juice, which acts only upon the *surfaces* of those portions with which it is brought in contact. If the food, therefore, is swallowed in large unbroken lumps or masses, it may lay for hours in the stomach undissolved. We all know how much sooner any thing we wish to dissolve in water, or in an acid, is acted on by being crushed or powdered. It is precisely so with the food in the stomach. If you are toothless, or have imperfect, decayed, or tender teeth, go to the dentist and have them supplied or repaired. The teeth are most important adjuvants to the gastric operations. Again I repeat, do not fail to masticate perfectly your food.

You should always have an abundant supply of fresh pure air.—For this purpose, be out of doors as much as possible. Always have your house, and especially your sleeping apartments, well ventilated. Never sleep in a confined room or atmosphere. See to it that the lungs are well expanded, the chest full, and the breathing deep and copious. You cannot have health with narrow, contracted lungs. You must have breath enough. If necessary, wear shoulder-braces, and use an inhaling-tube. Do not imagine that these remedies are useful only in lung disease. They are often of the greatest benefit in dyspepsia.

Keep the skin in good condition.—Bathe daily, using a hair-mitten, or flesh-brush, or crash-towel, vigorously, to stimulate the cutaneous circulation, promote perspiration, and keep the surface free from impurities. Adapt your bath to your condition. Bathe in water as cold as agreeable, but never so cold as to cause a chill, or leave you cold after the bath. (See remarks elsewhere on bathing.)

In a word, the dyspeptic should aim, by obeying all the laws of his being, to secure and maintain, in all respects, the highest possible degree of general health and vigor.

DIET IN DYSPEPSIA.

There is scarcely a subject connected with the treatment of disease about which there is more confusion, doubt, uncertainty, and conflict of opinion or experience, than that relating to the *diet of dyspeptics;* and this is not surprising. As no two cases of dyspepsia can be found that are in all respects alike, and almost all differ essentially and widely, the experience of no dyspeptic can be a safe

guide for any other in the matter of diet. Here, most emphatically, "one man's meat is often another man's poison." So, too, the dyspeptic can get but little aid from the experience of the healthy in selecting proper food for himself. He must, in the exercise of good common sense and sound judgment, be guided by *his own* experience. Let him consult that experience, and eat what he finds to *agree with him best.*

It is true that there are a few *general rules* of diet that are applicable to all dyspeptics, as well as to those in health; and we can mention some articles of food that are usually found to be easily digested, and others that are generally indigestible. I will advert to a few of these rules.

Meals should be taken at regular intervals.—This is important. By the common experience of Christendom, it is pretty well settled that it is most conducive to health to take three meals a day:—the first between seven and nine in the morning, the second between twelve and two in the afternoon, and the third between five and seven in the evening. I am aware that a custom prevails among many of our business men, particularly in cities, to take only two meals a day:—one at eight to nine in the morning, and the other at four to six in the afternoon. They make this afternoon meal the principal one, and very generally a surfeit. This is undoubtedly a pernicious habit—one which makes thousands of dyspeptics. But at whatever hour you take your meals, let them be taken at regular intervals, and not one day at one hour and the next at another.

Never overload the stomach.—This is always bad. There is no exception to the rule, whatever may be the character of the food eaten. However exacting the appetite, and whatever may be the temptation, the dyspeptic should never permit himself to eat too much. As to how much is *enough*, he must of course be the judge. And he *can* judge correctly, if he will, by consulting his good sense and not his appetite. If he cheats himself and transgresses this rule, the penalty will come as sure as fate. He cannot escape it. Let him remember, too, that by a single imprudence of this kind, he may precipitate himself to the bottom of the hill up which he has been toiling for weeks, or months perhaps, towards health.

Still, do not try to regain health by starving yourself.—It is just about as injurious to live on too *low* as on too high a diet. You must have *sufficient* nourishment. Select the food which you find

to agree with you best, and then eat enough, even though its digestion gives you pain.

Do not continue the use of any article of food that injures you.—When you become sensible that what you eat does not agree with you, or is positively injurious, *abandon it entirely* and at once, however palatable and however much gratification it affords you. Thousands cling to an injurious luxury, because it is a luxury. Do not be guilty of such folly. It is bad policy to take poison, even though the poison is sweet.

Do not eat late or hearty suppers.—The last meal of the day should be eaten not later than from five to seven o'clock in the afternoon; so that there may be sufficient time before going to bed for the food to become dissolved and pass from the stomach, as indigestion goes on very feebly, if at all, during sleep. The habit of indulging largely in the tempting "delicacies" usually set out at evening parties—sweetmeats, rich cakes, hot bread, cold meats, ices, creams, strong coffee and tea, wines, liquors, &c., &c.—is most pernicious for any one, and utterly suicidal for the dyspeptic. So, too, the supper should be a *light* meal. Heavy, solid food should not be eaten in any considerable quantity. Enough food should be eaten, however, so that the person shall not feel hungry or faint before bedtime. A moderate, comfortable meal of light, easily-digested food, taken at an early hour in the evening, is the rule. If there are exceptions, they must be governed by good sense applied to the particular circumstances of each case.

In relation to particular articles of diet for the dyspeptic, as I have said, each invalid must, to a great extent, be guided by his own experience. There are, however, some things which we may safely say are generally injurious; such, for instance, as hot bread, rich pastry, warm cakes, minced-pies, cakes fried in fat, rich soups, melted butter in any form or state, strong coffee, highly seasoned food of any kind, all heating condiments—unripe, or wilted, or partially decayed fruit or garden vegetables, &c. Then some will find they cannot eat any species of fat meat; others can eat only fat meat.

Dr. Beaumont, from whom I have already quoted, gives us the result of his experiments with St. Martin, upon the comparative digestibility of different kinds of food. As these results may be interesting to the reader, I here present them.

TABLE,

Showing the Mean Time of Digestion of the different Articles of Diet, naturally, in the Stomach, and artificially in vials, on a Bath.

The proportion of gastric juice to aliment, in artificial digestion, was *generally* calculated at one ounce of the former to one drachm of the latter, the bath being kept as near as practicable at the natural temperature of 100° Fahrenheit, with frequent agitation.

ARTICLES OF DIET.	MEAN TIME OF CHYMIFICATION.				
	IN STOMACH.			IN VIALS.	
	Preparation.	*Hrs.*	*Min.*	*Preparation.*	*Hrs.*	*Min.*
Rice	Boiled	1				
Pigs' feet, soused	Boiled	1				
Tripe, soused	Boiled	1				
Eggs, whipped	Raw	1	30	Whipped	4	
Trout, salmon, fresh	Boiled	1	30	Boiled	3	30
Trout, salmon, fresh	Fried	1	30			
Soup, barley	Boiled	1	30			
Apples, sweet, mellow	Raw	1	30	Masticated	6	45
Venison steak	Broiled	1	35			
Brains, animal	Boiled	1	45	Boiled	4	30
Sago	Boiled	1	45	Boiled	3	15
Tapioca	Boiled	2		Boiled	3	20
Barley	Boiled	2				
Milk	Boiled	2		Boiled	4	15
Liver, beef's, fresh	Broiled	2		Cut fine	6	30
Eggs, fresh	Raw	2		Raw	4	15
Codfish, cured dry	Boiled	2		Boiled	5	
Apples, sour, mellow	Raw	2		Masticated	8	30
Cabbage, with vinegar	Raw	2		Shaved	10	15
Milk	Raw	2	15	Raw	4	45
Eggs, fresh	Roasted	2	15			
Turkey, wild	Roasted	2	18			
Turkey, domestic	Boiled	2	25			
Gelatine	Boiled	2	30	Boiled	4	45
Turkey, domestic	Roasted	2	30			
Goose, wild	Roasted	2	30			
Pig, sucking	Roasted	2	30			
Lamb, fresh	Broiled	2	30			
Hash, meat and vegetables	Warmed	2	30			
Beans, pod	Boiled	2	30			
Cake, sponge	Baked	2	30	Broken	6	16
Parsnips	Boiled	2	30	Mashed	6	45
Potatoes, Irish	Roasted	2	30			
Potatoes, Irish	Baked	2	30			
Cabbage, head	Raw	2	30	Masticated	12	30
Spinal marrow, animal	Boiled	2	40	Boiled	5	25
Chicken, full grown	Fricasseed	2	45			
Custard	Baked	2	45	Baked	6	30
Beef, with salt only	Boiled	2	45		9	30
Apples, sour, hard	Raw	2	50	Entire pieces	18	
Oysters, fresh	Raw	2	55	Raw, entire	7	30
Eggs, fresh	Soft boiled	3		Soft boiled	6	30
Bass, striped, fresh	Broiled	3				
Beef, fresh, lean, rare	Roasted	3		Roasted		

ARTICLES OF DIET.	MEAN TIME OF CHYMIFICATION.				
	IN STOMACH.			IN VIALS.	
	Preparation.	*Hrs.*	*Min.*	*Preparation.*	*Hrs.* *Min.*
Beefsteak	Broiled	3		Masticated	8 15
Pork, recently salted	Raw	3		Raw	8 30
Pork, recently salted	Stewed	3			
Mutton, fresh	Broiled	3		Masticated	6 45
Mutton, fresh	Boiled	3			
Soup, bean	Boiled	3			
Chicken soup	Boiled	3			
Aponeurosis	Boiled	3		Boiled	6 30
Dumpling, apple	Boiled	3			
Cake, corn	Baked	3			
Oysters, fresh	Roasted	3	15		
Pork, recently salted	Broiled	3	15		
Porksteak	Broiled	3	15		
Mutton, fresh	Roasted	3	15		
Bread, corn	Baked	3	15		
Carrot, orange	Boiled	3	15	Mashed	6 15
Sausage, fresh	Broiled	3	20		
Flounder, fresh	Fried	3	30		
Catfish, fresh	Fried	3	30		
Oysters, fresh	Stewed	3	30	Stewed	8 25
Beef, fresh, lean, dry	Roasted	3	30	Roasted	7 45
Beef, with mustard, &c	Boiled	3	30		
Butter	Melted	3	30		
Cheese, old, strong	Raw	3	30	Masticated	7 15
Soup, mutton	Boiled	3	30		
Oyster soup	Boiled	3	30		
Bread, wheat, fresh	Baked	3	30	Masticated	4 30
Turnips, flat	Boiled	3	30		
Potatoes, Irish	Boiled	3	30	Mashed	8 30
Eggs, fresh	Hard boiled	3	30	Hard boiled	8
Eggs, fresh	Fried	3	30		
Green corn and beans	Boiled	3	45		
Beets	Boiled	3	45		
Salmons, salted	Boiled	4		Boiled	7 45
Beef	Fried	4			12 30
Veal, fresh	Broiled	4			
Fowls, domestic	Boiled	4		Masticated	6 30
Fowls, domestic	Roasted	4			
Ducks, domestic	Roasted	4			
Soup, beef, vegetables, and bread	Boiled	4			
Heart, animal	Fried	4		Entire piece	13 30
Beef, old, hard, salted	Boiled	4	15		
Pork, recently salted	Fried	4	15		
Soup, marrow bones	Boiled	4	15		
Cartilage	Boiled	4	15	Masticated	10
Pork, recently salted	Boiled	4	30	Masticated	6 30
Veal, fresh	Fried	4	30		
Ducks, wild	Roasted	4	30		
Suet, mutton	Boiled	4	30	Divided	10
Pork, fat and lean	Roasted	5	15		
Tendon	Boiled	5	30	Masticated	12 45
Suet, beef, fresh	Boiled	5	30	Entire piece	12
Beefsteak	Broiled			Cut fine	8
Beefsteak	Raw			Cut fine	8 15
Beef	Boiled			Entire piece	9
Mutton, fresh	Broiled			Unmasticated	8 30

ARTICLES OF DIET.	MEAN TIME OF CHYMIFICATION.					
	IN STOMACH.			IN VIALS.		
	Preparation.	*Hrs.*	*Min.*	*Preparation.*	*Hrs.*	*Min.*
Cream				Raw	25	30
Cheese, old, strong				Entire piece	18	
Cheese, new, mild				Divided	8	30
Oil, olive				Raw	60	
Tendon				Entire piece	24	
Cartilage				Divided	12	
Bone, beef's, solid				Entire piece	80	
Bone, hog's, solid				Entire piece	80	
Parsnips	Boiled			Entire piece	13	15
Parsnips	Raw			Entire piece	18	
Carrot, orange				Entire piece	12	30
Carrot, orange	Raw			Raw piece	17	15
Potatoes, Irish				Entire piece	14	
Cabbage	Boiled	4	30	Boiled	20	
Peach, mellow				Cut small	10	
Peach, mellow				Mashed	6	

We must not, of course, understand that this table furnishes an *invariable* rule as to the time required to digest the various kinds of food mentioned. Dr. Beaumont has given us, no doubt, a truthful statement of what he observed of the operations of St. Martin's stomach, and has made up this table from numerous experiments upon this man. But it must be borne in mind that it was the stomach of *Alexis St. Martin*—not yours, nor mine—Dr. Beaumont experimented with. We have these results from a single individual, and that individual in most complete health. Probably, had the continent been searched, a more perfect specimen of health could not have been found. He was a Canadian Frenchman; belonging to a race than whom one more hardy, more simple in their habits, with more power of endurance, or a higher degree of vitality, does not probably exist; and St. Martin was one of the most hardy and healthy of his race. His wonderful recovery from an injury that would have killed immediately any common man, shows this to be true. The stomach of such a man can hardly be a guide for all others. Then, again, there are so many circumstances that affect digestion, varying the perfection at different times in the same individual,—as, for example, the general condition of the person at the time the food is taken, the interval that has elapsed since the preceding meal, the keenness of the appetite, the quantity of food swallowed, the amount of exercise

taken immediately before or after eating, the state of mind—whether excited or in repose, elevated or depressed, in a placid and agreeable or angry and unhappy mood, &c.,—that we can by no means be certain that we should find the experience of any other person to agree with that of St. Martin. We may, perhaps, draw some general inferences in relation to the comparative digestibility of different classes of articles used for food; as, for instance, that vegetables are usually slower of digestion than meats and farinaceous substances; oily or fatty substances, than the non-oleaginous; the meat of domestic animals, than that of wild animals, &c. But beyond this, these experiments will not authorize us to go; and we are forced to come back to what I have before said,—that each person should be guided by his own experience, using therewith his best reason and judgment.

OBSTRUCTION OF THE GALL-DUCTS BY GALL-STONES.

Before closing this chapter on indigestion, I ought to mention a peculiar disease to which the liver is subject, and which often interferes greatly with the function of digestion.

One of the most common complaints is gall-stones in the gall-bladder, which prevents the discharge of the bile from the liver into the bowels, and these are often the cause of habitual costiveness. Almost every disease of the liver inclines to produce dyspepsia, indigestion, and acidity of the stomach, as the bile is a great neutralizer of acidity. Liver complaints are almost always accompanied by slow bowels, and persons who have any reason to suspect disorder of this organ, or disposition to it, should by all means make a steady use of cathartic medicine, such as acts on the stomach and on the liver itself; but they should avoid calomel, and use only vegetable remedies. In the second volume of this work will be found a formula for cathartic pills, such as I use in these cases; they are eminently useful and valuable, and if used faithfully, will prevent all fear of accumulation of bile or gall-stones and of biliousness. When we have reason to suspect there are gall-stones in the gall-bladder, obstructing the gall-ducts, one of the most valuable of remedies is to take from a wineglassful to a gill, or even half a pint, of pure sweet oil every night, just before going to bed. The use of this, persevered in for a few weeks, will oftentimes cleanse the liver and

gall-duct of gall-stones. I have in three weeks brought away several ounces of these terrible obstructions. In some cases, from long-continued obstruction, the gall-duct becomes very greatly thickened and hardened, and finally grows up, and the passage becomes obliterated. This symptom only occurs in elderly persons who have long experienced trouble with the liver.

Liver complaints are very apt to make their appearance in all countries where fever and ague prevails, and where a great deal of calomel and quinine are employed.

This complaint, if taken in season, or before the powers of life are exhausted, can be perfectly and permanently cured. All cases should be treated as they occur, and remedies should be judiciously employed for the prevention of the disease.

CHAPTER XXIX.

SKIN DISEASES—FELON—CANCER—SCROFULA—GOITRE—RHEUMATISM —GOUT—UTERINE DISEASES—DISEASES OF THE OVARIES—WHAT IS INFLAMMATION.

SKIN DISEASES.

I WISH to say a few words upon skin or surface diseases, which make their appearance upon the external portions of the body or limbs, forehead, head, neck, lips, &c.; and also on the tongue, and in the mouth and throat as far as visible. The varieties of these affections are very numerous; indeed, complete treatises, illustrating the whole subject of skin diseases, and clearly describing them, with plates, so as to make them perfectly intelligible to every professional reader, have engaged the attention of many writers, and numerous volumes have been produced of great elaborateness and extent; but after all, I scarcely know of a popular work in our language upon these complaints.

There are a few simple types of skin diseases; but these are continually running into and complicating each other. That these various surface diseases are produced by a poison, by irritation, or by mechanical agencies, cannot, I think, be denied or controverted. These poisons may originate immediately from what is eaten, and may be of longer or shorter continuance in the system; they may seem to be perfectly interwoven into the very constitution; but they are undoubtedly poisons. In proof of this, we often find that where persons have died of malignant diseases, and the dissector, or those examining the body, wound themselves with the instrument employed in the operation, these wounds sometimes become of a most poisonous and malignant character, and rapidly diffuse their virus over the whole system, often producing death; or if death is not produced, inducing derangements which continue during life.

Skin diseases occur, some in summer and some in winter, and

others in the changeable months of spring and fall. Some are characterized by great heat,—of this kind is erysipelas; some by much stinging pain, itching, and burning,—of this kind is the nettle-rash, which repeatedly appears and disappears upon the surface, and from its stinging and itching, and its transient character, its name compares it to the irritation produced by the application of the common nettle. Some appear in large red or whitish spots, and lumps; others come out in the shape of blisters and water-pimples, which run more or less into each other; in some, the bases of the eruptions appear very much inflamed; in others, the skin around the pimples looks cold and pale. Some terminate in scales, and others in scabs; some go off in a dry scurf, whilst others suppurate. One class affects only the scarf-skin, or *epidermis*, and shows itself in brown spots upon the face, particularly of females; others affect the outside surface of the true skin, or *cutis vera*, between it and the scarf-skin, and blister up, raising the scarf-skin, and forming water-blisters,—this we see in salt-rheum; others in *canker* and pimples, as in tetter, herpes, &c.; while others still appear to form in rings, as in the common ringworm. Again, the disease commences below the skin, in the cellular substance above the muscle, and then we have small pimples which rise up through the true skin in points, and suppurate; and again, they extend down more into the cellular tissue, and we have true boils and carbuncles. These diseases are hardly ever fatal whilst they continue external; but when they are repelled and occupy the surface of the large internal organs, they become highly dangerous; indeed, they may be productive of almost all the varied diseases to which we are liable.

The carbuncle is an exception as regards the non-dangerous character when externally developed, for many, very many die from the effect of carbuncles: the enormous extent of space affected, and the large mass of flesh involved, will oftentimes produce a great deal of fever and disturbance in the system, in many subjects even mortification of the parts; and when these carbuncles are seated permanently about the neck or head, or any vital part, death often ensues, especially in old, debilitated, or worn-out constitutions.

Skin disease often breaks out in the mouth, and upon the tongue, in little eating ulcers, blisters, and red burning pimples, extending frequently to the throat; in this form it is very distressing indeed.

One of the most distressing forms is found in the sore mouths of nursing females, often extending to the stomach and bowels. This complaint I have found, as well as nearly all other skin diseases, to be most eminently amenable to remedies, and perfectly curable when proper measures are employed.

BLOTCHES, SPOTS, PIMPLES, ETC., ON THE FACE.

In some instances, these skin diseases are exceedingly repulsive in their appearance, disgusting and loathsome. I will here mention a few of them affecting the face.

Pimples, blotches, eruptions, and brown spots, very often affect the faces of young persons of both sexes; they are frequently excessively annoying, and render the face, to a greater or less extent, repulsive, depending, of course, upon the extent of the eruption. We have in the first place brown spots, yellow, dirty-looking stains as it were, which will occupy parts of the forehead and nose, cheeks, chin, lips, or neck. These brown spots are sometimes almost yellow; at others they fade away to a light straw-color, but they usually have a decidedly yellowish tinge. From some unexplained cause, females are more subject to them than men; indeed, they seldom appear on men. I have never known them to occur except in cases where either the stomach, liver, or internal organs were or had been affected. It is an unpleasant complaint, but in a vast many cases it can be entirely removed.

The next form I shall mention is that in which simple pimples rise upon the forehead, cheeks, chin, and about the sides of the nose; these rise up in many cases red and hard, and terminate by suppuration; the pimples breaking at the top, and coming off, when gradually the little diminutive boil will disappear. Sometimes they will suppurate again and again; and as one or more goes off, others will come on, the skin around them retaining all the while its natural color. In other instances, we find the surfaces between these red pimples to be red, inflamed, and burning, the pimples rising out of this reddened inflamed surface, and finally, in some cases, covering the whole face, like a horrid mask. This form of skin disease occurs in both sexes, but, perhaps, oftener in females. The subjects of it become not unfrequently exceedingly repulsive to the beholder.

In other cases we see pimples break out upon the face, lifting up the skin a little, which are found to be hard and tuberculous. They do not inflame and discolor the skin, but they render the countenance very disagreeable, from want of smoothness on the surface, taking away the clearness of the complexion. We find them at other times rising on the face and terminating in dirty black spots, like the mouth or eyes of a worm. These will sometimes occupy very much of the face, and are very repulsive.

ERYSIPELAS UPON THE FACE.

In other cases we find an exceeding redness of the face, without pimples. The complexion is somewhat clear, but of a deep and fiery red, and the patient experiences great burning of the face. With some individuals there is merely a rosy complexion, as if indicating genuine good health; but in others there is a deep scarlet carnation which rests upon the face at all times, and is indicative of any thing but health or a healthy constitution. Such persons often bleed at the lungs, or are subject to acute diseases; they have weak constitutions, and very moderate vigor and life.

There is a curious fact to be noticed with regard to erysipelas—chronic erysipelas:—that while the patient who is a sufferer from almost any other form of chronic skin disease, salt-rheum, tetter, &c., will feel vastly better whilst the disease is on the external surface, and when it retires inward will be much worse—in erysipelas, whenever the disease is apparent on any external part, the patient will usually be much worse than when it disappears. I have observed this in very many cases, and I believe the rule is probably universal. In this respect, I think that the external appearances of the humor producing erysipelas differs from all other chronic skin diseases, as when it makes its appearance externally, it always throws the patient into fever, rendering him miserable, and producing suffering which is not experienced when it is not apparent at the surface.

In some instances the red spots or surfaces produced by erysipelas upon the face, although they will not form pimples, become hard and permanently calloused.

This form of disease is eminently curable; not, however, by applications to the surface alone. It always requires constitutional

treatment, more or less, as it proceeds from a poison in the blood, which is generated by various causes. All these annoying eruptions can be removed from the face with the use of proper remedies, although some are more obstinate than others. The brown spots are the most difficult to remove; all the others require but a few weeks for their permanent cure.

I had a most interesting case some time since:—A beautiful young lady called on me, whose face was perfectly repulsive from the prevalence of large pimples, like small boils scattered over the face, and dusky dark spots between the boils. She certainly appeared to very great disadvantage; in fact, her face was so disfigured as to be a source of exceeding sorrow to her family and all of her friends and acquaintances. At the end of four weeks of treatment she called upon one of our first daguerreotypists, and had her portrait taken, which was sent to the great exhibition in Paris, where it received the prize for beauty, as being one of the handsomest portraits in the whole exhibition; and it was sold to an English lady for $40. In a letter which I received from this young lady some weeks after learning this gratifying result, she says:—"It is entirely owing to you; for if I had not experienced the benefit of your remedies, my portrait would never have made its appearance anywhere; and if it had, it would only have repelled the observer, from its disgusting appearance."

SKIN DISEASE AFFECTING THE LIPS.

It is very often the case that persons are subject to skin diseases affecting the lips—sometimes only one, but more often both. Thus affected, the lips may become a source of constant irritation and trouble for many years, if not cured. Upon attacks of dyspepsia, by errors in diet, or taking cold, the lips will become immediately very much swollen and sore, and deep cracks will take place in them; they are often dry and scaly, with stinging pain, a scalding feeling, and great irritability, so that almost any stimulant will seem to aggravate the complaint very much. Great care is necessary in the diet, constant watchfulness over the state of the whole system, or the lips are in a constant state of irritation, swelling, &c. Sometimes this state of things goes on until actual cancer is developed, and a train of sufferings follow, difficult to describe. Not unfrequently

upon the termination of fevers the lips will break out in very extensive sores; and this is always considered favorable. At other times an ordinary cold will go off with sore lips, and the eruption then seems to be a critical one, and highly beneficial to the patient.

These diseases of the lips are always very curable, but require, as I have said in respect to all the others, great care in the application of remedies not to repel them, so that they will settle upon some more vital organ in the interior of the body.

SKIN DISEASE IN THE SCALP.

The scalp is oftentimes subject to a very unpleasant disease, called plaited-hair, or *plica Polonica*, from the fact of its being formerly so prevalent in Poland amongst the peasantry and soldiery. It is occasionally seen in this country, principally upon the heads of children; a yellowish water exudes from the surface of the skin, which soon hardens, forming crusts and scabs, attended with a great deal of itching and burning. This disease seldom attacks any other part of the head except that covered by the hair, and when it occurs in adults, is very apt to remove the hair. Sometimes skin diseases will travel from other parts of the body, and attack the scalp. About two years since, a young lady called on me who had lost her hair entirely from this cause. She had been subject to skin diseases, tetter and salt-rheum, on different parts of her person, particularly on her hands. Suddenly it seemed to leave every other part and attack the scalp, travelling up the neck; and as soon as it reached the scalp, the hair fell off as far as the disease extended. It finally occupied the whole scalp, and all the hair was lost. Sometimes ordinary *tetter* will appear on the scalp in pimples, at times suppurating. As a general rule, nearly every form of skin disease affecting the scalp will remove the hair, more or less, although these pimples will, when not extensive, but little affect the hair. Indeed, there can be no doubt that the loss of the hair by its falling off is almost always occasioned by a *skin disease* in the scalp, which is either manifest, or which merely affects the roots of the hair without showing any external developments of disease.

All the forms of skin disease affecting the scalp which have been brought under my notice and care, have rapidly yielded to treat-

ment, in the course of a few months, and sometimes in a few weeks; when, the disease being permanently cured and healed, the hair, if it had fallen off, has grown again as usual.

SKIN DISEASES AFFECTING THE HANDS.

Distressing forms of skin disease will often appear on the hands. One of the most common is salt-rheum, usually locating itself upon the back of the hands. They are also subject to a disease called *lichen*, from which the nails dry up and come off, and the whole surface, the back particularly, and even the palms, seem dried and shrivelled up, more or less; and the scarf-skin comes off in extensive scales or flakes. Not unfrequently the skin upon the hands will crack in a most distressing manner; sometimes this is confined to one or two of the fingers, and they will be affected with an acutely painful and burning heat.

In some of these diseases the hands will swell up and blister very much upon the backs, when the individuals thus affected are unable to put their hands in water, as the disease is terribly aggravated by it.

Most of the skin diseases that attack the face or scalp, appear not to be influenced in any degree by climate or change of season; but those which affect the hands are usually much worse in the changeable seasons of the year, in spring and fall; whilst during the heat of summer and settled cold of winter, they are much better, or disappear altogether.

These diseases are perfectly curable in a moderately short time. They always have a constitutional origin, and require constitutional as well as local treatment. They proceed from a poison in the blood, and the blood must be purified in order to render the cure permanent. Applications should never be made to the parts affected, unless at the same time internal remedies are given to prevent the disease being repelled to the interior of the body.

SKIN DISEASES AFFECTING THE LEGS.

Skin diseases oftentimes affect the lower limbs, especially of elderly persons. Sometimes the limbs swell very much; at other times there is little or no swelling accompanying these affections.

True salt-rheum often spreads itself over the calves of the legs, the inside of the thighs, in the groins, and in the bend of the knees. Sometimes these parts are subject to eruptions of a dry and tettery character, accompanied by much heat, burning, and itching, especially after retiring to bed. Not unfrequently pimples appear, terminating in suppurating points, and itching intolerably, which, on being scratched, bleed readily and run into extensive sores. I lately had a patient who presented an instance of this kind. He was a man over sixty years of age, who had suffered with the complaint upon the thighs, legs, &c., a great number of years, and I had the pleasure of all but entirely curing the case in a short time, so thoroughly modifying and changing its character that he has never experienced much suffering since.

I would here repeat that the utmost caution should be used that these eruptions be not repelled to the internal organs of the system, because they may produce at once the most formidable and dangerous diseases known to us. But with proper treatment, they are rapidly, perfectly, and permanently curable.

SKIN DISEASES AFFECTING THE FEET.

In some instances the feet are subject to severe skin diseases; not, however, of the ordinary character, there being but little development of disease upon the surface, but great general soreness and heat in the feet, especially upon retiring to bed; so that even in the depth of winter, in a cold room, the sufferer finds it necessary to put his feet out of bed and keep them wholly uncovered, so excessive is the burning which prevails in them. This burning heat is very much of an erysipelatous character. It is perfectly and entirely curable.

FELONS.

Occasionally persons are to be found who are liable to be attacked by felons, deep-seated sores in the palms of the hands, down close to the bone; also on the fingers and about the joints. Cases are common where their effects are truly deplorable.

Something more than a year ago, a lady of my acquaintance called on me, with one of her hands almost destroyed by a felon. She had been suffering for over six months; her fingers were terribly

contracted, drawn inward against the palm of the hand, and nearly immovable; but, fortunately, they had not become well and rigid. I expressed my surprise that her surgeon had not counteracted the effect of these contractions, and immediately commenced treatment. I put her fingers in elastic splints, which produced a constant but moderate pressure, forcing them into their original shape; by means of proper constitutional treatment, and local management and application, in the course of a few weeks the hand was restored to its natural shape, but it was some time before she had entire control of it. A few months more of neglect, and the hand would have been destroyed. Where we find crooked fingers, or the joints distorted, either from felons or rheumatism, it is the fault of either the patient or his physician, that the disposition has not been counteracted by the use of splints and liniments, so as to take away the tendency to contraction, and at the same time remove the disease.

CANCERS.

There is no disease affecting the human system that is more terrible, or the subject of more dread, and none more destructive of life than cancer. It is a disease so universally known and so frequently noticed, as to scarcely require description. I will say, however, that there are two great classes of cancers. One class is superficial, and quite external in its first development; to this class belong those which affect the lips, the face, the nose, &c., and sometimes appear on the back and on various parts of the body: they are more apt to affect men than women. The other class will attack deep-seated parts and glandular bodies, as the breasts of females and also the uterus. Cancer will sometimes affect the tongue.

Now, I need not describe the disease or its appearance and progress, as they are very well known. Cancers are characterized by itching, stinging, burning, rending pain, and are at first very insidious, scarcely noticed. Sometimes they will linger about the face with merely a little scab, and on being picked off another one will form,—a dry, scaly scab; and at last cancer will be fully developed. Upon the female breast the cancer is often at first merely an obscure, deep-seated lump, occasioned sometimes by a blow or some other injury, and sometimes resulting from inflammation following sup-

pression of milk, or a hard swelling left after a broken breast; and this may remain in a dormant condition years before any development of a cancerous disease takes place; but finally it may break out, and gradually involve the whole breast.

In the progress of cancers, the general system usually becomes involved, sooner or later, and all the great organs of the body are more or less affected.

CAUSES OF CANCER.

If any one fact is better established than another in pathology, it is that cancers proceed from poison in the blood, and that no true cancer ever existed, or has ever been known to exist, that was not apparently produced and nourished by poison in the blood. So thoroughly is this understood, that in Paris, when a cancer is cut out, or I should say, when a tumor has been removed by the knife and does not return at some point, the part remaining permanently well, it is set down that the disease was not of a cancerous character; because long-continued observation has perfectly settled the point in the minds of surgeons that, in cases of true cancer, though you may remove the tumor which is the focus or the mouth from which the poison exudes, yet upon cutting out this centre the disease will form another centre in some other part, or in the same part;—it will have a vent somewhere.

CURABILITY OF CANCER.

I have observed a great many cancers—have treated many, and can bear positive witness to the fact that they are perfectly curable, and that even in very advanced stages,—depending, however, upon the vitality of the patient. There may be a point of prostration from which the patient will not rise; but, as a general thing, cancers are thoroughly and wholly curable, by constitutional means and local applications. I have seen cancers weighing six pounds entirely destroyed by constitutional treatment alone, so as to become quite dead, and exist beneath the skin simply as foreign bodies; suppuration around them subsequently taking place, when they have come out, and the surface healed. I have known a cancer to be kept entirely at bay, so as never to break out during forty years, by the daily use of proper medicines to control its progress.

Cancers should never be cut out. This always has and always will prove a total failure. Or if, in some exceedingly rare cases, a tumor of a cancerous character has been removed by the knife, and not broken out again, it forms a striking exception to the great general rule. No matter whether the cancer weighs half an ounce or six pounds, still the same rule holds—that it will return again, provided it be a true cancer. But when removed by local application and constitutional treatment—by general remedies employed to thoroughly purify the blood—then it is no more apt to return than any other disease. The system becomes, in fact, permanently well, and may remain so during a long life, being entirely rid of the poison which produced the cancer.

In some cases this cancerous poison does not locate upon external parts, but attacks some internal organ,—the lungs, the stomach, bowels, womb, &c., being liable to become its seat. In these cases, unless treated at a very early stage of the disease, it usually seems to be beyond the reach of remedies; still, in the early stages, it is usually curable, even when developed internally.

I would advise any person suffering from cancer, never to neglect it, but never to have it cut out; and if eaten out or removed by local applications, the applications should be of a gentle character, not producing much suffering, and taking time to perform their office. The horrible sufferings induced by the strong caustics employed by some physicians, often produce such a shock to the nervous system, that, though the cancer may be removed, yet the unfortunate sufferer will never recover his health, and the powers of the nervous system will be broken down forever.

In the second volume of this work will be found a list of remedies for the removal of cancers, which, when properly used, will not fail of effecting their purpose.

SCROFULA, OR KING'S EVIL.

This is sometimes a surface disease, and sometimes it has its seat on the internal organs. When appearing externally, it usually occupies the glands of the neck, seldom appearing otherwise than in large lumps under the jaws, or on the sides of the neck. Sometimes it occurs in the glands under the arms, and in other

parts of the body and limbs. These lumps, after swelling more or less for a long time, usually finally soften and suppurate, and come out in considerable masses, resembling cheese curds. The parts may then slowly heal, especially in young persons. But when the constitution is low, it is found that the process of healing will be correspondingly slow. It is very often the case that a humor, different from the king's evil, will be complicated with it, making its cure much more protracted and obstinate than it otherwise would be.

The disposition to king's evil shows itself in disease of the bones, distortion of the spine, white-swellings, and all that class of diseases. It is very apt to occur in children of scrofulous parents, or in those whose diet has been very low for a long time, who are greatly exposed to the cold or wet, who sleep in badly ventilated rooms, suffer from foul air, or reside in thickly settled parts of cities, where the ground is low and damp, &c., &c. All these are more or less subject to king's evil or scrofula; although, in some instances, we may find persons whose constitutions are so low that true king's evil will take place even though their circumstances may be very easy, and they may have all the enjoyments and luxuries of life, and all the advantages arising from pure country air, well-ventilated rooms, proper diet, &c.

TREATMENT OF KING'S EVIL.

In the treatment of king's evil, great care should be taken to renovate and build up the constitution, and on no account to prostrate the system in any way. In this disease, iron is often given, and by most physicians it is considered to be of advantage. Pure air, and, above all, change of air, will do very much for the relief of the patient; so will sea-air, sea-bathing, &c., &c. No applications whatever should be made that can by any possibility drive the scrofulous lumps upon the internal parts of the body. I have known large scrofulous lumps upon the neck to be apparently entirely removed, but the matter has been carried and deposited at the base of the lungs, so as finally to fill them up, and make them perfectly solid as far as the mass is deposited. I have witnessed most distressing instances of disease resulting from applications made to scrofulous swellings, without at the same time guarding the constitution, building up the system, renovating the strength, and enriching the blood. Iodine, and a variety of lotions, applied to these swellings, without

at the same time any constitutional treatment, will indeed often cause the swelling to disappear; but then the patient will usually be taken with a cough, ending in consumption—tuberculous deposits in the lungs; or it may attack the stomach or bowels, and obstinate dyspepsia or chronic diarrhœa may result.

King's evil, like all surface diseases, proceeds from constitutional causes, and must be treated by constitutional remedies. Local treatment alone will not do, as the disease would then be repelled upon the large organs in the interior of the body, producing sickness, and often death, and giving rise to diseases a thousand times worse than the external developments themselves of this disease.

GOITRE, OR SWELLED NECK.

This is a disease consisting of a chronic swelling or enlargement of a gland in the neck, called the *thyroid gland*. It is often found to exist in different parts of our country; but the supposition is, that it occurs most frequently in mountainous districts, and that it arises from some peculiarity in the water drank. It prevails greatly in some parts of Switzerland, and in other mountainous districts through Europe: in fact, in all mountainous districts, as far as they have been noticed, goitre or swelled neck is found. I have, however, observed it in districts far removed from mountains, in swampy localities, and where the patients could not be suspected of having drank mountain water. Still, the causes developing goitre may exist most, and no doubt do, in high situations and mountain tracts. The disease itself is of a scrofulous character. I have seen it many times in persons who were particularly liable to king's evil, or whose family were so.

Goitre is an obstinate disease, and in its progress is productive of great inconvenience. In some cases, by swelling internally very much, it will produce choking or partial suffocation, and obstruct the circulation of the blood. It causes, in some cases, idiocy and cretinism; in others, it causes such irritation of the windpipe and such obstructions about the throat, as to produce death. In many instances the enlarged gland becomes enormous, weighing many pounds, while in other cases the swelling never attains a very great size.

CURABILITY OF GOITRE.

I believe that in all the earlier stages this disease is perfectly curable, by constitutional remedies and change of air,—seeking a situation where different water may be procured, and then using constitutional remedies to remove the disease. I have seen it cured in a great many instances; and I feel confident that proper remedies will prove successful, when timely, judiciously, and perseveringly used.

In the second volume of this work will be found remarks upon the remedies proper to be used for the cure of goitre. I would observe, that those I employ are always strictly constitutional, and are most usually successful. Where the goitre is large, the medicines have to be used for several years patiently, so as to prevent its growth, and finally reduce its size until it disappears.

RHEUMATISM.

Few diseases prevail more generally, or are of more frequent occurrence, than rheumatism—attacking persons of all ages and of both sexes. It is more apt to occur, however, in the middle periods of life, and in old people, than in the young; but it may attack us at all periods of our existence.

Rheumatism is developed in two forms—the acute and the chronic. The acute form attacks usually with great violence, and in a very few hours the patient will be unable to move the part affected,—which may be but one joint, or it may be the whole body. Rheumatism attacks the joints, muscles, and tendons—both superficial and deep-seated—the hands, the fingers, knees, ankles, hips, spine, the cords of the neck, the shoulders, shoulder-blades, arms, elbows, &c. It is found to prevail most in the changeable seasons of the year and in very cold weather. It occurs most frequently in damp situations, and during the prevalence, in this climate, of easterly winds, which come on cold and damp. In the perfectly settled weather of summer and winter, it is not so prevalent or so severe. Persons once attacked with rheumatism, are very liable to a recurrence of the attacks. In the progress of the disease, if not cured, the joints become greatly inflamed, and stiff and rigid; and finally, chalky formations taking

place, the joints become obliterated. The joints of the fingers, at times, swell very much and become greatly deformed—the fingers being cracked, distorted, and drawn downwards to the palm of the hand, or thrust outward, and all power may be lost in the wrist. In a case of acute rheumatism in the elbow-joint, an eminent physician of Boston, of my acquaintance, advised the patient not to use the joint any, but keep it in a sling; and in six weeks it had entirely grown up, so that no movement was possible; and although this occurred some twenty years ago, the gentleman has never recovered its use.

In acute attacks on the joints, as soon as the first acute suffering is removed, the joint should be moved daily, so that it may not destroy the joint and produce anchylosis. Sometimes the tendons will contract terribly in rheumatism, and the legs be drawn up to the thighs. I need not enter into all the details of these terrible cases; they are of very common occurrence, and productive of the greatest suffering and inconvenience known to us. I have seen persons who have been bed-ridden during much of a long life from the effects of rheumatism.

ITS CAUSES.

Rheumatism is produced by poison in the blood, and this poison is generated as it is in a cold—by checked perspiration. Millions of small pores or pipes lead outwards through the skin of the human body, and are constantly conveying out the waste and worn-out matter of the system, which, if retained, is a rank poison, and a poison which is one of the most dangerous that is known to us. This is shown by the disease produced when men, women, and children are confined on ship-board, or in badly ventilated rooms, or in crowded apartments, where ventilation is not possible and cleanliness is neglected. Now, from any cause, let this perspiration be checked,—by the application of cold, or by a draft of air striking on, for example, the knee or the elbow—and the pores, filled with this poison, will immediately be closed, and the poison itself will be thrown upon the joints, or upon the membrane covering the bones, or upon the tendons, and in a few hours inflammation may take place in the part, and rheumatism be developed:—this is often the cause of rheumatism.

In persons whose blood is very impure, much smaller and slighter

causes will develop rheumatism, than in those who have naturally a pure blood; yet it seems that it may be developed in almost any person from exposure to cold and checked perspiration.

Among the causes which predispose to rheumatism, and make it possible, nay, almost certain, is filling the system with mineral medicines. In many cases great quantities of mercury are exhibited by physicians for various diseases; and very often these mercurial preparations remain in the system for a whole life, insinuating themselves into the cellular structure of the bones, about the joints, and on the muscles, and may even be deposited in the fatty parts, and remain in a metallic state for twenty years and more without being changed. I have seen bones sawn apart, which showed a deposit of mercury in large quantities. I once saw a case of this kind in Florence, Italy, at the great anatomical museum there. It is to be seen almost everywhere where pathological specimens are preserved.

CURABILITY OF RHEUMATISM.

As regards the curability of rheumatism, I must unhesitatingly say, from a long experience, that when proper remedies are applied at the proper time, and continued with perseverance, there is hardly a disease that is more certainly curable, and that the system may be so cleared of the poison and all predisposition to the disease, that the patient may escape from all liability to attacks, and not be subject to them. The terrible consequences resulting from rheumatism in the joints, may be often removed and obliterated. I have treated a vast many cases of rheumatism, and I have not found a case that has not been perfectly curable, even after twenty years' continuance. However, when the joints become completely distorted by deposits of chalk and lime, which frequently takes place, it then becomes very difficult to remove them. Still, in young persons, they *can* be removed and the swelling reduced, until the fingers and joints are reduced to their natural size, with their natural mobility. So, contracted tendons in young persons can be restored to their healthy state; but in very aged persons it becomes more difficult, and sometimes the cure becomes necessarily so protracted that the aged invalid will prefer the rheumatism to perseverance in the medicines and remedies.

I would conjure any persons inclined to be subject to rheumatism,

not for one moment to despair of relief, for they can be made perfectly well if the proper remedies are employed.

GOUT.

This disease is usually set down as belonging to the same family with rheumatism. It is no doubt thus classed correctly. It used to be a very prevalent disease, and it is still so in England, Scotland, and Ireland. It has, however, mostly favored the gentry with its attacks—it being quite an aristocratic complaint; many even imagining that no laborers or persons of low origin could have the gout. It is a disease which results from luxurious habits, from gluttony, and from the free use of wines and liquors, and usually occurs in persons of vigorous constitutions, great powers of endurance, and great personal strength. The prevalence of less boisterous habits, less personal indulgence, less gluttony, and less drunkenness, has reduced the frequency of the disease, and it is now comparatively rare. Fifty years ago it was known in this country quite extensively among the gentry, and at this day a few lingering remnants of their descendants exhibit traces of it. It differs from rheumatism by attacking the smaller joints, while rheumatism generally attacks the large ones. Gout more usually appears on the joint of the great toe than elsewhere: this is its location, and here it is expected to be found. The suffering will go on from day to day until it seems almost insupportable, and then it will gradually recede and retire, running a course of from three to twelve days. The remedy has been "flannel and patience;" if otherwise meddled with, it has been very apt to retire promptly to the heart or stomach; and woe to the wretch thus attacked!

Gout is undoubtedly produced by humor in the blood, and it is as curable and as easily prevented as rheumatism, and its attacks can be as promptly cut short. As, however, it rarely occurs among us, I need not dwell upon it. In my remarks upon the use of cathartic medicines, in another place in this volume, I refer to their value in gout. I will add that it requires constitutional remedies, as in rheumatism, and of course the abandonment of the habits which have produced it. Yet those habits which have been long customary, must be laid aside gradually and with great care; because, if done at once, the system may become prostrated, and other chronic diseases be in-

duced. With proper care and management, however, there is no difficulty in the cure of gout, or in permanently relieving the system of its baleful effects.

UTERINE DISEASES.

Under the head of *Uterine Consumption*, I have already noticed at considerable length the diseases to which the female constitution is subject, and the influence which the uterus, by its nervous and structural connections, exerts, upon the lungs particularly, both directly and through the general system. It is proper that I should here group together the symptoms attending these disorders, and indicate the means for their relief.

The complaints referred to may be either functional,—as for instance suppression of the catamenia (*amenorrhœa*), painful or obstructed catamenia (*dysmenorrhœa*), leucorrhœa, &c.; or organic, as in enlargement, ulceration, displacement of the uterus, &c. These are the more common forms of disease. There are others sometimes, though not so frequently met with, such as cancer, polypus, and other tumors.

The functional derangements named, are, as I have said, the most common. There are few females who do not experience them more or less at some time during life. Irregularity, obstruction, and suppression of the periodic function may be induced by any of a variety of causes. A simple cold, wetting the feet, sitting in a draft of air, being out in the rain, getting chilled in any way, violent emotions of any kind, such as anger, grief, fright, disappointment, &c.,—any of these causes will at certain periods interrupt the process of nature. Prostrating sickness is sure to do so, if long continued. No class of females are exempt from it; even the most robust and generally healthy do not escape. In some cases the derangement is only temporary, and passes off in a few hours or days, the system at once returning to its usual regularity and health; in others it is protracted, and results in serious mischief; in others, still, it seems to become chronic, causing at each recurrence of the natural period the most distressing sickness and suffering. Even a temporary irregularity throws the system into confusion, causing languor, lassitude, headache, pain in the back and hips, nausea, chills, fever, loss of appetite, pallor of the face, or determination of the blood to the

head, with bloating and redness of the face, &c.; and if long continued, it usually lays the foundation for serious and often fatal disease. As a general rule, no female can have good health while suffering from any irregularity of this function, and no one should have the slightest hesitation, from delicacy or any other motive, to seek immediate relief when conscious of its occurrence. There are many females who suffer terribly all their lives from painful periods; and I know of no class of invalids that more deserve our sympathy and our best efforts for their relief. There can hardly be a greater affliction. The sufferings endured by many are beyond description—not being exceeded by those attending parturition in intensity, and being protracted often through one or two weeks; when the sufferers rise from their beds wasted and prostrated as from a run of fever. And this terrible ordeal is looked forward to as their inevitable fate at the return of every monthly period. It is only an act of mercy to assure this class of sufferers that they may be relieved. It is not necessary that this most painful state of things should continue. I speak from the results of my own practice (having had the opportunity of treating hundreds of such cases with entire success) when I say to them, you may be restored to complete health.

Leucorrhœa, or female weakness, is generally present to a greater or less extent where there is any inflammation or irritation of the uterus; and it not unfrequently occurs when the irritation is confined to the vagina. It often accompanies *prolapsus uteri*. When this is the case it may frequently be cured by supporting the parts in their places. I have in many instances known simply wearing an abdominal supporter to arrest it entirely. Usually, however, other remedies are required. This is a most prostrating and exhausting disorder, and should not be permitted to continue unchecked. It is curable—entirely so.

But I ought to say here that this complaint is not unfrequently made the occasion of very great abuse in treatment. Some physicians, particularly those who make the treatment of female diseases *a specialty*, are in the habit of rousing the fears of their patients afflicted with leucorrhœa, with the idea that it proceeds from some organic disease of the uterus, when such is not the fact; and others induce them to submit to the application of remedies unnecessarily harsh and violent. Upon many unfortunate victims of this empiricism, burning caustics have been employed, which have only served

to create disease where none before existed, without in the least abating the disorder under which the patient was conscious of suffering. Females should be warned against submitting to cauterization unless upon the clearest indications, apparent to the eye of a skilful and experienced physician, that positive ulceration exists.

The uterus is subject also to *inflammation*, both *acute* and *chronic*, a condition which usually precedes ulceration; and if it could in all cases be promptly met with proper treatment, ulceration might usually be prevented. Attacks of *acute* inflammation come on usually with chills and rigors, followed by more or less feverishness throughout the system, by flashes of heat, particularly in the face, and by a dull, heavy pain in the loins and lower part of the abdomen. In some cases the heat and pain in the parts is extremely severe, and the womb becomes greatly swollen. This state may continue for a few days only, or as many weeks; usually it subsides in a short time into the *chronic* form (unless terminated by cure or death), when it may continue for years, and generally sooner or later ushers in *ulceration*.

There is also a form of chronic inflammation which is not the result of a subsidence of an acute attack, coming on slowly and obscurely, but little noticed by the patient, and seldom brought to the notice of the physician until ulceration has commenced. When this takes place, there are, however, indications of the disease in the general health. This is found to be in a low condition; or there is some sympathetic derangement, such as dyspepsia, nervousness, palpitation of the heart, headache, dysmenorrhœa, leucorrhœa, or some form of deranged functions, which are obstinate and unyielding, together with pain in the back, bearing down, &c., &c.

The most unfortunate feature of this low chronic inflammation is, that it creeps upon the patient unawares—so stealthily and insidiously, and so masking its real character, that in every case, almost without exception, the patient does not suspect, or at least does not disclose, what her disease is until ulceration has set in. This is most unfortunate, as there are few instances that would not yield to proper treatment, if submitted to such treatment before there is ulceration.

Ulceration of the cervix uteri, or neck of the uterus, is not, however, an uncommon complaint: thousands are suffering from it who do not know the fact. It is seldom that it causes any pain in the uterus

or parts immediately adjacent; at least not until its destructive progress has been going on for considerable time. It, however, gives rise to a multiplicity of annoying and distressing symptoms, which the patient usually refers to other parts of the system and other diseases. It is seldom the case that ulceration of the *cervix uteri* prostrates the sufferer upon her bed entirely, or makes her so sick that she cannot, at least a portion of the time, engage in her ordinary pursuits. Still there is always feebleness and ill-health—the patient is continually "*an invalid.*" Some days she will be able to be about the house—perhaps to go out; the next she may be confined to her room or her bed. At one time she may have a good degree of strength, freedom from pain and distressing symptoms, feeling encouraged by the hope that she is going to get well; and then again she is prostrated,—her strength is gone, she is filled with pain, all her bad symptoms are aggravated—headache, dyspepsia, palpitation of the heart, distress in the back, sides, hips, chest, &c., all worse. She can neither walk nor stand. She throws herself upon her bed, and despairs of ever again knowing what health is. In this way the weeks, the months, the years, drag slowly on, all burdened with a heavy weight of suffering. This is a protracted, weary, disheartening, painful disease, but not often soon fatal. It may become so, as it does in some cases, after long years of suffering. But usually the life of the patient is at last terminated by the accession of some other disorder for which the system has been prepared by the insidious undermining of the constitution, affected by the one we are considering.

Thus, *ulceration of the cervix uteri* constitutes a very painful, obstinate, and destructive disease. One of the peculiarities of the disorder is, that the symptoms to which it gives rise are experienced much more in other parts of the system than at the real seat of the disease. These symptoms are, palpitation or fluttering of the heart, rush of blood to the head, pain and weakness in the back and hips, loss of appetite, dyspepsia, nausea, obstinate costiveness, low spirits, loss of energy, great nervousness, pain in the chest, sides, and shoulders, sometimes shortness of breath, cough, and irritation of the throat, derangement of the urinary organs, &c., &c. Some or all of these symptoms may be present, while no pain or other indication of disease is experienced in the uterus itself. Usually, however, with these there is a sense of bearing down, more or less pain

and heat about the pelvic region, with inability to stand or walk much.

It not unfrequently occurs that the patient, and even her physician, may not be aware that any disease of the uterus exists, attributing the symptoms that occur to disorder imagined to exist elsewhere; and treatment may be employed for a long time intended to remove such supposed disorders, without, of course, any avail. In all such cases it is of the greatest importance that the true seat of the disease should be ascertained, and such remedies and treatment employed as shall subdue and heal the ulceration of the uterus from which the various symptoms described proceed.

DANGER OF MISTAKING OTHER DISORDERS FOR DISEASE OF THE UTERUS.

While uterine disease does very frequently, as I have stated, occasion symptoms which may lead the patient and the inexperienced practitioner erroneously to conclude that there is disorder of the stomach, liver, heart, lungs, spine, nerves, or some other organ remote from the true seat of disease, still close observation and care are necessary that the mistake be not made of referring actual disturbance elsewhere to the uterus, when no disorder of the uterus, in fact, exists; and this is growing to be a common mistake. Within a few years, a class of physicians has sprung up who attribute about all the ills that female flesh is heir to, to inflammation or ulceration of the uterus. Present these gentlemen with a clear case of dyspepsia, or liver complaint, or heart disease, or consumption, or bronchitis, or cerebral or spinal disorder, and if the invalid is a female, the *speculum vaginæ* is forthwith in requisition; and in the field of view therein presented, the true source of the unhappy symptoms, whatever they may be, is sure to be discovered. This instrument—though a very useful one in intelligent, skilful hands—when it is made, as it often is by these hobby-riders, a sort of universal diagnostic telescope, may become a medium of grave abuse, and its use often the prelude to mistaken, cruel, and mischievous treatment.

I cannot forbear copying here a paragraph from Dr. Reese's *American Medical Gazette*, of February, 1857. The editor's remarks are severe but just:

"MORAL INSANITY—SPECULUM VAGINÆ MANIA.

"In our last number we inserted an article by Dr. Gooch, of Richmond, Va., on the use and *abuse* of the speculum, by certain uterine doctors, who adopt the sentiment of one of our obstetrical teachers, that '*the wardrobe of a physician is incomplete without a speculum uteri in his pocket.*' In corroboration of the justice and necessity of rebuking this folly, we have numerous cases reported to us of professional degradation from the improper use of this instrument, by would-be specialists in this department, whose ignorance led to false diagnosis and barbarously worthless treatment, even after looking through the speculum. One of them writes us, that at a late meeting of the medical society of the 'literary emporium,' Dr. Channing in the chair, a prominent member reported the case of a lady who had been treated for UTERINE DISEASE in *England*, *New York*, *Philadelphia*, *Dorchester*, and *Boston*, and in all by the most eminent physicians, *Dr. Channing* among the rest; and the reporter *himself* confessed that he also had thus treated her. This lady recently DIED! *mirabile dictu!* when the autopsy revealed that she had *no uterine disease at all*, but her malady had all the while been in the duodenum, a perforation having been found just below the stomach! It is humiliating to chronicle the disgraceful facts thus publicly, but all these eminent doctors doubtless subjected this lady to the SPECULUM; gazed through it upon an *ulcerated os and cervix;* probably cauterized her in the most approved fashion; impaled her upon Simpson's sound or stem-pessary; and mayhap employed the actual cautery, after leeches and scarifications had failed; when lo! and behold! a post-mortem reveals nothing but the cicatrices left by the wounds of her medical executioners, and the proof that with the speculum these doctors

'Had opties sharp, I ween,
To see what was not to be seen.'"

Let it not be forgotten, then, that there *are* such diseases as dyspepsia, disorder of the liver, bowels, heart, spine, nerves, lungs, throat, &c.—diseases that have their seats in these organs, and that females may have them independently of any uterine affection. Neither is it necessary to make a mistake with reference to this affection. When it exists, there are certain peculiar indications that never fail to disclose its existence to the experienced physician.

CAUSES OF UTERINE DISEASE.

The great source of the uterine diseases I have described, whether inflammation, ulceration, prolapsus, or otherwise, is humor in the blood which determines upon the parts. The immediate occasion of these diseases frequently is violence or injury from child-bearing, miscarriages, &c. But much violence and laceration of the parts are often sustained in this way which are not followed by any permanent injury, the wounds inflicted becoming entirely healed. This takes place where the constitution is good and the blood pure. But if there is humor or poison, such as salt-rheum, erysipelas, tetter, acne, &c., then those injuries are very liable to become the occasion of the determination of the humor upon the uterus or the parts adjacent, and the foundation is thus laid for protracted uterine disease.

In many cases these humors make their presence felt externally on the parts, causing intense itching and burning, which may be wholly external, or it may be experienced both externally and internally. This peculiar feature of the complaint often becomes a source of most intolerable annoyance, discomfort, and suffering.

The relaxation of the abdominal belts, with consequent displacement of the bowels, uterus, &c., is not unfrequently the cause of uterine disease. This may result from general debility, and standing too much, from carrying too much weight of dress upon the hips and pelvis, from over-exertion, particularly in lifting heavy weights, &c., from lacing the waist too tightly, &c., &c. Uterine inflammation and ulceration may result from oft-repeated suppression of the periodic function by colds, chills, wetting the feet, &c. There are other causes; but I have referred to the most common.

CURABILITY OF UTERINE DISEASE.

In the early stage of uterine disease, a cure may be very readily and speedily effected by the use of proper remedies. When it has become chronic and seated, and where there is ulceration, a longer time is required to effect a cure; but in no case should the patient or physician despair of restored health. Judging from the results I have witnessed in my own practice, all forms of uterine dis-

case may be cured in from one to four or five months. To effect this desirable result, however, it must be regarded and treated as a constitutional as well as a local disorder, and our remedies must be both general and local. We must call to our assistance the aid of mechanical supports when needed, and employ medicines to purify and enrich the blood, to support the strength, to subdue and remove all accompanying disorders; and then, if required, local applications to heal the ulcerations or abrasions of the parts. In some instances it may be necessary to use caustics. But these instances are not as numerous as the practice of some physicians who make a specialty of this disease would lead us to suppose. I am aware that the usual practice, where ulceration is suspected about the uterus, is to examine the parts, and apply active cautery, in the shape of lunar caustic, caustic potash, quick-lime, and also concentrated acids, nitric acid, preparation of arsenic, &c.;—in fact, the most intense and highly concentrated caustics known to us, and even iron heated to white heat. That there are some cases where the neck of the womb is actually ulcerated, and where these caustics do contribute to the cure of the disease, I do not gainsay; yet I am positive that not one case in fifty so treated really requires such treatment, but might be cured with vastly less of suffering to the lady, and in one-tenth part of the time now usually employed. It is frequently the case that ladies come to this city and other places, and remain under treatment one or two years, when by judicious and proper management, they may be cured in that number of months.

DISEASE OF THE OVARIES.

These organs, in common with others, are liable to disease, which is usually shown in inflammation, enlargement, softening, induration, diseased growths, ovarian dropsy, &c. Acute inflammation is generally attended with much pain and suffering, sometimes very acute. It frequently results from or is complicated with inflammation of the uterus or its appendages. The pain is deep-seated, severe, and attended by a sense of burning in the pelvic region: while the patient is at rest and continues quiet, she does not suffer very acutely; but if she attempts to rise or move about, the pain is often very excessive. There is often a slight swelling or puffiness on one or both

sides of the lower part of the abdomen which is sore to the touch, pressure upon it being extremely painful; there is more or less pain, a quick pulse, hot, dry skin, and often nausea and vomiting. This inflammation may result from puerperal fever, inflammation of the uterus or its appendages, extending to the ovaries, from colds, or from humor determining upon these organs; the latter is the most frequent cause.

Chronic Inflammation of the Ovaries follows as a sequence of the acute form, and may continue for years, terminating at length in softening, gangrene, tumefaction, or dropsy,—the latter, perhaps, the most frequently. It is supposed that seated chronic inflammation, and especially ovarian dropsy, is incurable. And yet I have treated cases where the disease has yielded to treatment, and life has been greatly prolonged. Before dropsy has set in, the disease may usually be conquered. Acute inflammation readily yields to correct treatment, and the patient may in nearly or quite all cases be restored to sound health. No case should be entirely given up; but a full and faithful course of treatment resorted to. Let me add, that I have met with very few instances of disorder of the female constitution, in any of its forms, that were not curable. The sufferer should not despair.

ON INFLAMMATION.

WHAT IS INFLAMMATION?

Inflammation is a term applied to denote a series of phenomena which present themselves in a great variety of diseases. It is generally marked by five symptoms, or demonstrations, as follows: pain, fever, heat, redness, and swelling. We find these in almost every instance where inflammation is visible. For instance, in the common boil we observe all—pain, fever, heat, redness, and swelling; also in a felon on the finger or hand; in attacks of gout in the feet, in acute rheumatism, in pleurisy, &c., they occur. In organs that are confined by bony walls, such as the brain or the lungs, these phenomena cannot be observed, but they necessarily exist. Wherever an injury is inflicted, or an offending substance is present in any part, nature sends to the part a greater quantity of blood than is natural to it in a state of health, for the purpose of expelling the enemy or repairing the mis-

chief. This, of course, produces pain, swelling, heat, and redness of the part, and these constitute inflammation. We thus see that inflammation is only an effort of nature to resist or repair injury. But if this action is very violent and long-continued, it may itself destroy the part where the struggle takes place. Thus, in some subjects, mortification ensues upon violent and protracted inflammation; that is, the inflamed part dies from an over-excitement which exhausts all its vital forces. This is sometimes witnessed in old, debilitated, and dissipated subjects.

From these remarks, the reasons for the peculiar symptoms attending inflammation are obvious. The presence of an unusual supply of blood will of course occasion increased redness, will puff up or swell the engorged part, and will cause a greater evolution of heat, which is produced by a union of the carbon and oxygen in the blood. Where there is the most fuel there will be the greatest fire. In inflammation, the blood-vessels become enlarged and distended with blood; as one may see in inflammation of the eye, when the veins and arteries in the cornea, which in their natural state are quite invisible, may be plainly traced traversing the eye like red threads.

The pain is undoubtedly produced by the distension of the blood-vessels, and by the pressure of these turgid vessels upon the nerves of the inflamed part. The object of inflammation, as I have before intimated, is always to relieve the affected part or parts—whether it be a finger, the eye, the lungs, the stomach, or the bowels—from the effects of some injury, or to dislodge some offending substance or matter. It may be a bruise, a cut, a broken or dislocated bone, a stick run into the flesh, or some irritant, or it may be a poison or humor in the blood. This relief is accomplished in some cases by suppuration or the formation of pus, or secretion of water, often both, by which the offending substances are, as it were, floated away. In others, where there is a wound, for instance, the increased blood supplies the necessary material with which to set up the healing process. Thus for the purpose of healing wounded or diseased parts, more or less inflammation is actually necessary—for without some inflammation no healing will take place. This is true of all injuries, abrasions, sores, or breaking of the tissues, internal as well as external, as well of ulcers in the lungs as cuts on the hand. And let me then say, the skill of the successful

physician is shown in controlling this inflammation, keeping it so far subdued that it will not itself injure the part, at the same time permitting it to remain sufficiently active to keep up the healing process until a cure is accomplished. It is this which gives such a priceless value to true medical skill, and places the physician of experience so far beyond the inexperienced neophyte and the merely book-learned or lecture-crammed novice, whether student or professor.

INFLAMMATION NOT A DISEASE.

If the foregoing views are correct, it is very clear that, so far from inflammation being itself *a disease*, it is an effort of nature to *cure* disease. There is in every instance where it occurs, an enemy with which it is contending. The common notion is the reverse of this. Most persons are apt to suppose they have described a disease when they have give a name to the peculiar inflammation which attends it. Even physicians fall into this error. Thus we hear of *bronchitis*, or inflammation of the membrane lining the bronchi; *pneumonia*, or inflammation of the lungs; *peritonitis*, or inflammation of the membrane enveloping the bowels; *pleurisy*, or inflammation of the pleura; *enteritis*, or inflammation of the lining membrane of the bowels, &c., &c. These terms are derived from the names of the various parts in which inflammation makes its appearance, and of course do not in the slightest degree indicate the nature or character of the real disease. They simply point to the part in which there are presented the phenomena of *inflammation*. They do not describe the nature or cause of the *destructive process* going on, to arrest which nature sets up the inflammation. To speak of the *disease*, therefore, as *an inflammation*, is merely to say that an enemy has invaded the part in which it appears, and which nature is striving to dislodge. As to what that enemy is, its nature, the occasion and mode of its attack, the peculiar mischief which, if left to itself, it would accomplish, or the manner in which it may be removed or encountered, the *name* gives no light.

ALL INFLAMMATION HAS A SPECIFIC CAUSE.

It should never, therefore, be forgotten that every instance of inflammation has invariably a specific cause. This is as true of pleu-

risy, pneumonia, or any other internal inflammation, as of the mischief caused by driving a nail into the flesh; and equally in the one case as in the other must we remove the cause, before we can hope to subdue the inflammation, or, as it is called, "*cure the disease.*"

Now with reference to wounds, bruises, or other injuries, as well as boils, carbuncles, and many descriptions of sores and humors on the surface, it is not difficult to make people understand that these are the mere effects of a specific cause. But when we speak of internal inflammations, of bronchitis, pleurisy, peritonitis, enteritis, pneumonia, gastritis, or inflammation of the stomach, &c., the nature of the disease seems more difficult of comprehension, and instead of searching at once for the cause and striving to remove that, most persons, indeed I may say most physicians, stop short with the inflammation itself, and content themselves with endeavoring to subdue that.

INTERNAL INFLAMMATION.

Some may say that while we can generally very readily discover the cause of inflammation when it is on the surface, it is generally impossible to do so when it is internal. But this is a mistake. It is true that when the inflamed organ or surface cannot be seen we lose the advantage to be derived from the appearance it presents to the eye. But it is not by the eye alone that we ascertain the character of external inflammations. There are numerous wounds, swellings, humors, sores, &c., on the surface, the character of which we cannot determine by their visible appearance; but we have to refer for the purpose to the general symptoms attending them, and the antecedent history and circumstances of the patient. If these symptoms and this history are carefully studied in any case of inflammation of the lungs, pleura, throat, liver, bowels, or any other part, they will usually disclose to us the cause. For example, a person has pleurisy, and on inquiry we find that he has taken cold, or been exposed to do so. We may safely attribute the inflammation at once to suppressed perspiration, which, falling on the pleura, has set up an inflammation there. Suppose, however, there is no appearance of "a cold," but there is ulceration of the lungs going on in the vicinity of the seat of the inflammation, then we may conclude that the inflammation in the pleura is an effort to repel the disturbing influence re-

flected upon the pleura by the diseased lung. Again, suppose we are called to a patient who has a hard, irritable cough, stricture and pain across the chest, short breathings, &c., indicating plainly an inflamed condition of the membrane lining the lungs. Now if the patient has taken cold, this state of things may proceed from that. But if, instead of this, we find that he has had the measles, and that the eruption has suddenly disappeared from the surface, followed by the symptoms described, we need be at no loss in accounting for the symptoms. We say, without hesitation, that the measles have "struck in and gone to the lungs." But what do we mean by "striking in?" Why, that the specific poison which produces measles has, to a greater or less extent, left the surface, where it was comparatively harmless, and become concentrated in the lungs. Nature rallies at once, and sends her forces there to expel the enemy, and hence the inflammation and congestion. What is true of these instances of inflammation is equally true of nearly all internal disorders. They all have a specific cause; and carefully directed observation, guided by knowledge and experience, will usually reveal what those causes are.

The nature and history of these causes of inflammation form one of the most interesting and important studies in which the physician can engage. Indeed, no physician can be a safe and successful practitioner who does not thoroughly comprehend them. If his mind is not clear on this subject, his practice will always be more or less empirical and hap-hazardous—the chances being that he will misunderstand the disease fifty times where he understands it once.

THE GREAT CAUSE OF INFLAMMATION.

It may not be inappropriate or unprofitable to notice here what I deem the great and principal cause of inflammation, whether external or internal. I refer to poison or humor of some kind in the blood. Aside from mechanical causes, or loss of symmetry, such as cuts, bruises, dislocations, displacements and fractures of the bones, —injuries resulting from some mechanical violence—and the taking into the stomach of too great a bulk of food, exciting drinks, or irritating substances—the only causes of inflammation which we can imagine to exist or to affect the system, are those in the nature of poisons, or of humors in the blood and fluids of the body. These poisons are of course numerous and diversified, possess various

characteristics, and have peculiar and specific tendencies to different organs. They necessarily produce a variety of results, or, as is commonly said, "a variety of diseases." Some of these poisons are what are termed *miasmatic;* that is, they consist of a something called *miasma*, a peculiar exhalation probably from some form of vegetation while in a state of decomposition. These are inhaled, and throw the whole system, it may be said, into a state of inflammation or "fever." Others are known as contagions—those producing small-pox, measles, whooping-cough, mumps, and other "contagious diseases." Others again originate in the system itself, from the arrest or imperfect performance of some of the functions of the system. For example, perspiration is suppressed; it is at once thrown back, absorbed, taken into the blood, and becomes a rank poison there. When a person "takes cold," therefore, he is simply poisoned. The exhalation of carbonic acid through the lungs is arrested, and very quickly the presence of this active poison destroys life. The kidneys perform their office imperfectly; and the uric acid, which they should have removed from the blood, is carried through the body, throwing it into most violent inflammation or fever, as, for example, in what is known as "scarlet fever." This last disease is supposed to originate in a specific contagious poison, which is inhaled by the patient. If such is the fact, and it may be, I believe, this specific poison acts primarily to arrest the secretion of the urine, and that the effects we witness—the fever, the eruption, the sore throat, &c.—result from an excess of uric acid in the blood. Without enumerating further these various developments of poison in the body, it is sufficient to say that all the waste matter of the system becomes, if not promptly removed, mischievous and destructive poisons.

HUMOR THE PRINCIPAL CAUSE OF INTERNAL INFLAMMATION.

Another class of poisons is that known under the name of *humor*, from which originate all that vast family of *skin diseases* that affect the human race. They may spring from imperfect digestion, from inappropriate food, or some defective performance of its office in some one or more of the organs of the body, by which the blood becomes corrupted or changed in its elements or in their normal combination, or it may be derived by inheritance from a poisoned parentage. The latter is a common source. We are a poisoned race, and

few human beings are ushered into life, in Christendom at least, with untainted blood. With the development of these poisons in many forms of *skin disease* everybody is familiar. Some of them appear as pustules, scales, blotches, running sores, rash, fissures, and abrasions of the skin, &c. Some are scarcely noticeable and of little consequence; others annoying, painful, and malignant. Some show little or no traces of inflammation, while others present all the characteristics of inflammation, of even an intense grade. I refer to them now as they appear on the external surface of the body.

Now it is a most important fact, but not one sufficiently known, that these "humors" or skin diseases, on the surface, with which we are familiar, *may all, or nearly all, be reproduced on the internal organs and surfaces.* The large expanse of mucous membrane lining the throat, the lungs, the stomach, the bowels, the urinary organs as well as the serous membranes, &c., is peculiarly liable to become the seat of these humors. In thousands of instances, where there is obscure internal disease, whether of the respiratory, digestive, or sexual organs, which baffles the skill of the physician, and obstinately resists all efforts for its relief, it may be traced to humor, which has determined upon these organs, and is there a true skin disease. It is the poison in the blood which produces rheumatism; but the same poison which produces rheumatism may, under other circumstances and in other subjects, produce salt-rheum: other forms of poison will produce herpes, tetter, boils, erysipelas, hives, or some other form of disease in the skin; and then when these poisons attack the internal organs of the body, we may have all the different varieties of inflammation that are described in the books or experienced by invalids. When the inflammation locates itself on any part and swelling is produced, which in a very mild form may be called thickening of the part, then often permanent injury is produced—in some cases destruction of the organ. For instance, humor settling on the internal ear, or on the tubes leading to the ear, may, if continued there for any length of time, lead to a thickening of the lining membrane of those tubes, or of the delicate tissue surrounding the auditory bones and nerves, and finally deafness—absolute and entire deafness—may take place. So if a humor settle on the ball of the eye, we may have pain, fever, swelling, redness, and finally total destruction of the eye, while the cause of it is a poison, an irritating substance in the blood, which is foreign to the naturally

pure condition of the blood, and when located on any tender part will prodnee inflammation with its terrible eonsequenees. So inflammation may result from a poisonous humor loeated on any one partieular organ or part of an organ, developing a disease peeuliar to that organ; if upon the lungs, the patient will have a eough; if on the throat, perhaps bronchitis; if on the joints, rheumatism, &e.; if upon the stomaeh, dyspepsia; if located upon the mucous membrane of the bowels, then ehronie diarrhœa takes plaee, or it may be, obstinate costiveness, stoppage of the bowels, &e. The character of the disease will depend of eourse upon the eharacter of the poison and the part on which it fastens.

Generally in these eases it will be found on eareful inquiry that the humor has at some period shown itself on the surface of the body, perhaps briefly, but still long enough to exhibit the real eharaeter of the enemy burrowing in the blood. Now it is important to be noticed, these humors when they reeede from the skin, and settle on the internal organs, produee, almost invariably, more or less inflammation, whether on the surfaee they do so or not. Thus a humor in the throat, the bowels, the pleura, the bladder, the kidneys, &e., will cause, as I have seen, an inflamed eondition of these organs. So a humor on the joints produees rheumatism—aeute rheumatism is plainly a poison in the blood. Gout is also the result of humor in the blood.

I cannot, however, pursue a further deseription of the various forms of inflammation resulting from humor, althongh it might be interesting to do so. No braneh of pathology presents a more interesting study than that eonneeted with humor or poison in the blood, developed in the various internal diseases where its presenee is not generally suspeeted.

In eonelusion, I desire to impress the thought that wherever there is inflammation it has neeessarily a distinet and speeifie eause. If that eause is not some violenee, meehanical or otherwise, inflieted on the patient, in nine hundred and ninety-nine cases out of a thousand it will be found in the blood. It must be apparent therefore that to eombat inflammation sueeessfully, we must strike at the eause and remove that. We may palliate it indeed by simply applying remedies *to the inflammation;* but we eannot in this way eure. *We must remove the cause.* As well might we hope to subdue the inflammation in a dislocated joint without "setting" the bones, or that

consequent on running a nail into the foot without removing the nail, as to cure rheumatism, bronchitis, pleurisy, gastritis, or inflammation of the bowels, kidneys, womb, liver, lungs, or any other organ or part, without removing the cause which has produced it. And usually this cause, as I have said, will be found to reside in the blood as a poison or humor. It is in detecting this latent poison, and being able to command remedies which will remove it from the blood, and thus purify the fountains of life, that the skill of the physician is shown. If he contents himself with "treating the symptoms" merely, palliating the pain, the heat, the redness, and the swelling, while he may in a measure succeed in doing so, he cannot *cure* his patient. The cause remains. It will almost certainly reproduce its mischievous results, and sooner or later permanently change, perhaps destroy the structure, causing what is called "*organic* disease," and thus end the life of the sufferer.

ART, NOT NATURE, THE TRUE PHYSICIAN.

WHAT CURES DISEASE?

Is it Nature, or is it Remedies? Recently I looked into the pamphlet of a young physician, and read in the very first line of his paper that "Nature was the great Physician." It has passed into a kind of aphorism with a vast number of physicians—that nature cures all diseases. If so, why have physicians at all?

This subject is one of the most important that can be discussed. It embraces the whole phenomena of life, health, and the continuance of our existence; and it is necessary, in order to have a clear view of it, to know why we live, and by what forces or powers life is continued. I will endeavor to explain and illustrate the phenomena referred to as clearly as possible, being aware, however, that there must necessarily be more or less of obscurity in the exposition of a subject in which theory, to a greater or less extent, is involved, and where all the facts are not capable of actual demonstration.

The human body may be compared to a locomotive, and the powers that move it—the vital forces—to the steam by which a locomotive is propelled. For the health of the one and the successful operation of the other, it is necessary that the original con-

struction, in all its details, parts, and combinations, should be perfectly formed, adapted, and adjusted; that the material entering into the composition of every bolt, and lever, and wheel—each separate piece of the one, and each organ, muscle, bone, nerve, vessel, and fibre of the other—should be perfect of its kind and perfectly adapted to its purpose;—that all the parts should be exactly fitted, adjusted, and combined, to accomplish the purpose designed; and then, that the vital force—the power that gives motion, life, and vigor to every organ and part—should be adequately furnished and properly applied. Another requisite is, that all the organs should act equally and in harmony. No one organ should act with greater or less relative force, or have greater or less relative development, than any of the others. In a well-constructed and well-regulated piece of mechanism, each part moves in harmonious relation to all the others;—one wheel may revolve a hundred times a minute and another a thousand, but in entire harmony with each other. We all know that it is of course necessary that these fixed rotations and this continuous harmony and equality should be maintained. If they are not, then discord, disorder, and destruction are at once introduced—the machine acts confusedly, irregularly, and chaotically, and finally ceases to act at all.

So it is in the human machine: each organ should perform its allotted part, neither more nor less; and all should act in the highest harmony, while at the same time they are capable, on occasions, of doubling or tripling the amount of their usual action, still, however, in harmony with each other. It is in this way that the structure of the system, the composition of its forces, and the evolution and exercise of its powers move on harmoniously together, developing as a result, a *sound, healthy, strong person.* Such is a state of health.

We observe, also, that this structure is liable to waste, to wear out, portions constantly dying; and that in order to repair this waste, provision is made for a constant supply of those substances which enter into the composition of the body as fast as the worn-out particles are removed. This waste is so great at some periods of life, that nearly the whole body is said to be removed and renewed once in seven years. This change is more rapid in earlier life than at a later period. To supply this waste, the blood, containing all the elements of nutrition, is sent to every part of the system;

and to remove the waste or effete materials, are vessels fitted for the removal of dead portions. Thus provision is made for taking away worn-out materials from the system and supplying those substances that renovate it. Were the blood always pure and the vital forces always in full and harmonious play, disease would never take place except by casualty or violence. But it is far otherwise. In thousands of persons the blood conveys through the system matters that instead of being beneficial are injurious, and produce obstruction, inflammation, change of structure, &c. Often by their mere presence they prevent the structure from being repaired or its waste removed, because they occupy the place of those healthful nutritives and stimulants upon which the healthy operation of the system depends.

Now, then, what is disease? I answer that disease is the partial or complete triumph of adverse agents or influences over the constitutional or vital powers of the human system, either general or local, and that it may result from three causes: one is mechanical violence; the second, defective nutrition and circulation; and the third, injurious substances in the blood—these injurious matters developing various changes in action, structure, and growth that are foreign to the body, injurious and irritating to it, and pernicious and life-destroying. By mechanical violence is meant such injuries as cuts, wounds, blows, falls, or fractures, or foreign bodies introduced anywhere, that more or less injure the system, even to the sudden deprivation of life. This class of injuries do not belong to disease proper, nor do they come under the present discussion, except perhaps to inquire and explain how it is that a cut or wound is healed.

What are the powers of nature or the constitution engaged in the reparation of its health? I answer, they are in some respects similar, though in a much higher degree, to those belonging to trees or plants. A cut in a tree will be healed by the constitutional powers of the tree; a new growth takes place and heals up the wound: the tree has, however, no absorbing powers; whereas, the human system will not only heal a wound, but absorb away the thickening which is left after its first healing. The human constitution has the power to cause a broken bone to grow together, provided the ends are placed in contact and kept so; but it has no power to bring the ends together. Here it is that art steps in and restores the broken bones to the proper position. At the very mo-

ment nature is powerless and even injurious in her action, art advances her aid, and brings the broken bones together, fastens them that they cannot move, and the powers of the constitution soon cause them to unite; and then in time absorb and remove away all the ragged points, and cover them in such a manner that the bone becomes as useful, perhaps, as ever. This power of reparation is greatest when the constitution is in its highest progress of development and strength, and less in the advanced years of life. It sometimes happens that the powers of life are so low that the knitting together of a broken bone, even, will not take place, as every surgeon has witnessed. In this case the system must be vivified, the constitution roused from its lethargy and its enfeebled condition, and the parts locally stimulated, so as to bring on that amount of action required to produce a cure. There are many persons greatly alarmed at the swelling and fever occurring about a wound. They may not be aware that a certain amount of fever and swelling is indispensable to a cure, and that they should not be wholly suppressed, but only carefully modified, so that the general system may not be injured by them—that the part affected may not be deprived of its vital power, which it is liable to be, by excessive action, by too violent and long-continued inflammation, bringing on *mortification;* or, in other words, the decease of the parts from utter exhaustion caused by excessive action or inflammation. Of course, under these circumstances, no healing takes place, and the general system may even sink and die.

I shall, however, confine my remarks here chiefly to those diseases which are not produced by violence or injury.

What is it that produces disease? I will take an example familiar to everybody:—Small-pox is acknowledged to be one of the worst forms of disease that attacks the human body. No one doubts for a moment but what it is produced by poison, and that it has its seat in the general system, injuring every part more or less affected by it, while its principal effect is seen upon the surface of the body, in eruptions, sores, &c. Now, then, can nature cure this disease? Small-pox is produced, as I say, by poison: this poison infuses itself into the general system, and it has in its own nature a peculiar power of propagation, and apparently a vitality of its own. After commencing its work on the system, it will live on from two to three weeks; and when it has run its course, when its powers cease,

it will itself die. The human system is the theatre of the mischievous operations, and is left, if not entirely destroyed, in a shattered, damaged condition. It is the office of nature and the constitution, which *is* nature, to resist and repair these damages; and this is all that nature can do in the management of the disease. The irritation, the excitement, the fever—all are produced by the poison, which stimulates the parts on which it is located, and through them the whole system. Can the constitution reject this poison? No; it receives it. It has no discriminating taste to reject any injurious influence which comes in its way; it receives all, whether poisons or otherwise; and they pursue their own course of development, live their lives in the system, and die when they have completed their course; and then, if the system itself is not destroyed, the work of nature and the constitution is to repair this damage.

Take another example: the surgeon, in dissecting a dead body or amputating a mortified limb, scratches his finger with the instrument he employs, and as much of the corrupted matter from the body as could be held on the point of a needle is infused into the wound, absorbed into the blood, and carried into the system. Has nature the power to neutralize or expel this poison, even when so insignificant in amount? Not at all. On the contrary, the virus rapidly propagates itself, transforming into corruption the whole body of the blood, until the person dies, a festering, putrid mass of corruption. Such occurrences as this are taking place every day. Let me instance one which happened in the central part of this State, in July last. The facts are given by the Geneva (N. Y.) *Gazette*, as follows:

"THREE PERSONS POISONED BY A SURGICAL OPERATION.

"It is our duty to record one of the most sad, and at the same time singular occurrences that has ever come within the sphere of our observation, which has already resulted in the death of two of the parties concerned, and so badly injured one other that his life is despaired of. The circumstances are these: Dr. John Potter, residing at Prattsburg, Steuben Co., brother of Dr. Hazard Potter of this village, well known as one of the most skilful surgeons of this State, was called upon to dress a man's arm which had been mutilated in the cog-wheels of some machinery. He made every effort to save the arm from amputation, and in this, at the sacrifice of his own

life, he has probably succeeded. The arm having maturated, he called on his brother, Hazard Potter, of this village, to assist in opening it. During the operation, he by some accident cut himself slightly, and allowed some of the virus from the arm of his patient to mingle with the blood. This in a few days had so poisoned his entire system that no earthly power could save him. He died on Friday last. While attending his funeral, his brother Hazard, who had a slight scratch on his hand at the time of performing the operation, and who had also become poisoned by the virus, felt an itching about the fingers, which proved to be the workings of the poison, and although attended by all the physicians in Geneva, his life is despaired of. Another man who assisted in dressing the arm was poisoned, but we have not been informed of his situation at the time of writing.

"P. S.—Since writing the above, we have been informed that the man who helped to dress the arm is dead."

In these instances of poisoning we have no difficulty in tracing the disease directly to its source; and we see that *art*, not *nature*, must be invoked if we would hope to cure it. But precisely the same phenomena occurs in all other instances of disease. Disease is always caused by influences just as specific, although more subtle and hidden. This is true not only of all forms of fever, of every species of epidemic, of all contagious and infectious diseases, but of consumption, heart disease, asthma, rheumatism, and chronic diseases generally.

But the human system not only receives poisons from external sources, but it also generates or develops them within itself. As we have seen, the materials of which the body is made, are constantly wearing out or *dying;* and this dead matter is always a rank poison, and if retained in the body constitutes the germ of inevitable disease. So also, any organ by becoming deranged from external influence, or otherwise, may have its functions or action so changed as to evolve within itself a poison, which being sent through the system shall cause general derangement, and even death. In all these cases, nature, feeble and overwhelmed, calls aloud for the aid and assistance of *art.*

It is true that the system is endowed with a certain power of resistance. But this power she always puts forth whenever she is

assailed; and were she able to *successfully* resist the assaults of her enemies there would be no disease. It is precisely the triumph of these enemies over nature which constitutes disease; and if disease is present, we may know she has been conquered after resisting to the utmost extent of her power. It is precisely because she cannot successfully resist the destructive influences which attack her, that the physician's aid is needed. It is true that some poisons pass out of the system wholly or in part through the great emunctories, as the lungs, bowels, kidneys, skin, &c., and then disease does not occur. Others do not; but perpetuate themselves, and continue to ravage the system for a longer or shorter period, until death ensues, or until they are conquered, neutralized, and expelled by remedies.

Then as nature can do little or nothing but repair the damages caused by disease, what can art do? When is it that the physician is wanted, and what is his appropriate office? The true office of the physician and his highest mission is, to search out and apply *antidotes* for those poisons which produce diseases, each, no doubt, having a character as distinctive as its cause is specific; and it is to me perfectly clear that it is impossible for any cause to exist, except in the fiat of the Almighty, without a counteracting cause; so every poison has, no doubt, an antidote. Then, I say, it is the duty of physicians to seek out and administer those antidotes which shall counteract the poisons which cause disease. If the antidotes be employed and adapted to perfectly neutralize the poison, a cure will be promptly and entirely effected. This is always the case with true antidotes. If, however, they only act partially as neutralizers, the cure will only be partial; as far as true antidotes, they are valuable and useful. The physician may check the development and reduce the violence of scarlet fever, small-pox, measles, typhus fever, &c., by a great variety of appliances and medicines within his reach, which are not in any respect true antidotes; and this is in fact the character of medical practice in the present state of medicine, to a vast extent, everywhere, even in the highest circles of the profession: as an almost general rule, *palliatives* only are employed, and not true *curatives*. The true curative is the true antidote that neutralizes the poison which is the cause of the disease, and thus arrests at once all its injurious effects and dangerous consequences.

It should be remarked that it is often the case that a remedy will act as a true antidote at one time in the course of a disease and

not at another. The poison may have changed its character, or the impressibility of the system may have been modified, so that what would neutralize the poison at the beginning of the attack, becomes powerless and inert towards the termination; or what was not an antidote at the commencement, becomes one towards the conclusion of the disease.

Suppose a railroad well constructed, and a locomotive in a perfect condition; yet the locomotive must be run with an eye to the strength of the road itself; it must not be so heavily loaded as to break down the road, nor so rapidly driven as to disorganize the road-bed. If an obstruction lies across the road, it may be so slight that the locomotive may brush it away, or so far overcome it that it shall not exert a greatly injurious effect upon the locomotive or upon the road. But if the obstruction is of such a character as to break up the road-bed and dash the locomotive to pieces, it of course must be taken away, or destruction follows.

This is the case with thousands of diseases which attack the human system; the attack is so great that the structure of the system may be changed, and the vital powers overwhelmed partially or totally. It is here that the high art of the true physician is shown to the greatest possible advantage, who with his antidotes neutralizes and removes the poison from which the disease springs, and then by hygienic remedies exalts the powers of reparation in the system, and gently leads back the whole constitution to health. This is the highest and greatest art known to the physician, and one of the most valuable that can ever be developed among men. Of course, in the process of restoration, a vast number of subjects must be thoroughly understood; all the errors of diet, all the faults of our food either in quality or quantity, power of nutrition, &c. A true knowledge is requisite of those influences or agencies that may poison the blood or render its nutrition deficient or imperfect. All the poisons that enter the system by the stomach, the lungs, the skin, or by inoculation or contagion, infection, &c., must be all understood.

We will again recur to the fact that nearly all diseases cease because they have had a peculiar life impressed upon them by their causes, and because they *live out that life.* The fact is well illustrated in the action of many stimulants. For instance, the whole system of the drunkard is overcome by the alcohol taken; but in a

short time, if he ceases to drink, the liquor is removed from the system, and passed away through the emunctories. This is the ordinary work of nature herself, and what she is always doing in the case of the inebriate; she then rouses the system, and repairs the damages of intoxication by the natural play of her healthy forces. But if the intoxication is protracted, these forces become weakened and the reparative powers lessened, until finally the poor inebriate sinks down powerless, and dies from the long-continued effects of over-stimulation. The effect of a dose of opium is similar to that of temporary intoxication from alcohol: it will live a certain life in the system, produce certain results, and then disappear; not by the power of nature, but because its own power of stimulus can exist but a certain length of time in the system.

We see the same fact in plants: certain nutritive substances being placed around their roots, they absorb them and grow well until these substances are exhausted; when we no longer see an advance in their growth, or in the activity of their life. The stimuli placed around these roots have lived their life, and passed away.

The same fact is noticed with poisons placed around the root of a tree; they will injure and destroy it, or continue acting on it until their life and power are exhausted. Then, if the tree survive, nature may repair the mischief, and restore the tree to strength and healthy growth.

From these facts I deduce the conclusion that no disease whatever is incurable. The damages or injury caused by it when allowed to run its course unchecked may be irreparable either by nature or art; but the original disease from which it sprung is, in its commencement, perfectly curable if only the proper remedies are employed; or, in other words, there is an antidote for every disease, which, if employed before the injurious effects on the constitution are so great that the powers of reparation are destroyed, will remove the disease. The reparation belongs to nature alone, while the cure of disease or the cutting short of it belongs to remedies. It is the province of antidotes, promptly and timely administered, to cure disease; whilst the restoration of the constitution to the usual standard of health, by the reparation of damages done by disease, belongs to nature. The recuperative powers of the system, it is true, may be greatly assisted by the physician's advice and art.

We will take the case of constipation: the bowels in many cases

become entirely inactive, and loaded with solid excrementitious matter, in which state the constitutional forces are utterly powerless to remove it. It is then that the physician is called in; and by mechanical and medical remedies, such as fluid injections and the lubricating effects of oil, and such remedies as will increase the secretion in the bowels, rouse their action and stimulate them to greater activity, he removes the obstructions, relieves the constipation, restores the patient to health, and the bowels to healthy activity. This belongs to the province of the physician, and what he administers becomes antidotal to the disease. The remedies may be either chemical or mechanical, direct or indirect in their action. Again, is your stomach disturbed from acidity? a proper alkaline remedy will neutralize and remove the acid. Are your bowels constipated? then oil and lubricating injections may soften the hardened fæces and allow them to pass off; or the bowels may be too dry, and stimulants will be given to cause them to secrete fluid into the cavities, and thus soften and float out the excrementitious matter from them. Here we find the province of the physician. Nature would not relieve these bowels, probably, until the system itself would be destroyed; but the art and the remedies of the physician come in and apply such antidotes as the case requires. After the fæces are removed from the bowels, then it is the office of nature to repair the damages done, and elevate herself again to the standard of health. And at this period the constitution may require some assistance;—tonics to arouse the recuperative powers, and to renew the strength of the constitution, so that health may be resumed.

The discussion of this subject might be much extended, and illustrations of the points I have stated indefinitely multiplied; but the limits of this work will not admit of it. Suffice it for me to say, that in my opinion nature does not *cure* disease; she to a certain extent repairs the damages resulting from it: but even in doing this she often requires our assistance; for sometimes these damages may be so extensive as to paralyze the powers of the system, and from this the constitution may never rally, and death ensue. At other times these damages are slight, and health is soon resumed by the recuperative powers of the system. The disease itself is cured by remedies; and these remedies, when they are true remedies, are *antidotes* to the poison or causes which produced the disease. The diseases themselves have a life impressed upon them, and live a cer-

tain time in the system, and if the system survives their action, then health may be again resumed; but in many cases the disease itself is more powerful than the system, and extinguishes life itself. The aid of the physician is demanded to alleviate urgent symptoms, to reduce excessive fever, to elevate from excessive prostration, and to give antidotes to the poison or the causes producing the disease; to control the disease or suppress its ravages, until the disease itself shall run its course and die out; and when the disease has thus run its course, then comes in also a high demonstration of the physician's power in assisting nature to repair the damages caused by the ravages of disease.

In conclusion, I would say, nature cures no disease; remedies cure the disease, and nature repairs the damages produced by disease. This is exemplified in cuts, wounds, blows, and bruises; in the return to health from small-pox, measles, all infectious diseases, fevers, inflammations, colds, &c.

There are, indeed, instances where nature seems to set up a disease of her own in order to remove an injurious cause of disturbance. Take, for example, a common, ordinary boil, which is no doubt produced by some obstruction in the blood-vessels or nerves, or by foreign substances in the part at which it originates, and we perceive the phenomena of pain, fever, heat, swelling, in other words, *inflammation* in the part. This goes on until nature has secured a full supply of blood, until the blood-vessels are thoroughly and sufficiently enlarged, when a large quantity of matter or pus is rapidly formed in the interior of the swelling, which finally bursts outward, a canal is formed, terminating outwardly, or into some cavity which leads out of the body, and along this canal is floated off the foreign substance, which was the orignal cause of the disease. We see the same phenomena also in the case of a stick, or other foreign body, thrust into the flesh. In these cases nature sets up certain processes which have a show of disease, but which are really not diseases in the true acceptation of the term, because they are natural processes, developed under extraordinary circumstances. A foreign, injurious body is in the flesh, and must be removed; and its removal is effected by the process of swelling and secretion of matter and ulceration; and consequent on the swelling, inflammation, and matter, we have pain, heat, &c. This is the natural process, and is very curious, as illustrating the recuperative powers of the system. It is

one of the ways nature has at her command of repairing damage and removing injurious bodies.

If this foreign body is so large as to prostrate the powers of the system, then reparation may become impossible, although an attempt at reparation will be made if the powers of life are not too greatly prostrated. It is here that the snrgeon finds employment; he removes the foreign body and wonderfully facilitates the cure of the injury.

It is most desirable that the physician should have a correct idea of the causes of disease, and also a true knowledge of the removal of those causes. But there are many physicians who pass this whole snbject over with wonderful flippancy and carelessness, and their practice is as useless as their views are loose and imperfect. I have never seen a more striking testimony of a physician against himself, declaratory of his ntter unfitness for his office, than that of the late lectnre by Magendie, the celebrated attending physician at the Hotel Dieu in Paris, in the following extract from one of his lectures. It is from the Paris correspondent of the *American Medical Gazette* for June, 1856. This writer says that he once heard Magendie open a lecture somewhat in the following words:

"Gentlemen—Medicine is a great humbug. I know it is called a science—science, indeed! It is nothing like science. Doctors are mere empirics, when they are not charlatans. We are as ignorant as men can be. Who knows any thing in the world about medicine? Gentlemen, you have done me the honor to come here to attend my lectures, and I must tell you frankly now, in the beginning, that I know nothing in the world about medicine, and I don't know anybody who does know any thing about it. Don't think for a moment that I haven't read the bills advertising the course of lectures at the Medical School: I know that this man teaches anatomy, that man teaches pathology, another man physiology, such a one therapeutics, such another materia medica—*Eh bien! et apres!* What's known about all that? Why, gentlemen, at the school of Montpelier (God knows it was famous enough in its day), they discarded the study of anatomy, and taught nothing but the dispensary; and the doctors educated there knew just as much and were quite as successful as any others. I repeat it, nobody knows any thing about medicine. True enough we are gathering facts every day. We can produce typhus fever, for example, by injecting a certain substance into the veins of a dog—that's something; we alleviate diabetes, and, I see distinctly, we are fast approaching the day when phthisis can be cured as easily as any disease. We are collecting facts in the right spirit; and I dare say in a century or so the accumulation of facts may enable our successors to form a medical science; but I repeat it to you, there is no such thing now as a medical science.

Who can tell me how to cure the headache? or the gout? or disease of the heart? Nobody. Oh! you tell me doctors cure people. I grant you, people are cured. But how are they cured? Gentlemen, nature does a great deal. Imagination does a good deal. Doctors do .... devilish little .... when they don't do harm. Let me tell you, gentlemen, what I did when I was the head physician at Hotel Dieu. Some three or four thousand patients passed through my hands every year. I divided the patients into two classes: with one, I followed the dispensary, and gave them the usual medicines without having the least idea why or wherefore; to the other, I gave bread pills and colored water, without, of course, letting them know any thing about it; and occasionally, gentlemen, I would create a third division, to whom I gave nothing whatever. These last would fret a good deal, they would feel they were neglected (sick people always feel they are neglected unless they are well drugged—*les imbeciles!*), and they would irritate themselves until they got really sick; but nature invariably came to the rescue, and all the persons in this third class got well. There was little mortality among those who received nothing but bread pills and colored water, and the mortality was greatest among those who were carefully drugged according to the dispensary."

Now is it possible that any physician can honestly continue in the practice of his profession when he pronounces unhesitatingly that every remedy he ever employed was injurious, and that the omission of all remedies left his patient in better condition than the use of any he knew how to prescribe? Yet such a fact is boldly put forth by Magendie, and this unfortunately is the case with a vast amount of the practice in France, where very many of our young physicians go to obtain a knowledge of disease and its curatives.

The French are proverbially the poorest *physicians* in the world: they appear to have the least possible idea of the causes of diseases, or the means of their cure. They either leave the patient to his fate, or in other words, leave him to nature, as they say, or hurry him out of the world by worse than useless remedies. According to Magendie's testimony he is far better off left to himself, than to use any remedies employed by a French physician. Note I am speaking of French *physicians*, not French surgeons.

It is terrible to conceive of a patient laboring under the effects of disease, and whilst that is raging in his system—living its destructive life there, and when its course is finished, leaving a prostrated and broken constitution—at the same time the medical remedies introduced by the physician should be destroying the patient, who might but for the artificial disease have lived through the accidental one, but cannot sustain the attacks of the two. There is little

doubt that in thousands and millions of cases, where improper remedies are employed continually, the poor sufferer has to endure one disease introduced by accident and another by art; and it is often the case that the artificial disease is tenfold worse than the accidental one.

I would leave this whole subject of antidotes, causes of disease, &c., to the consideration of physicians, begging them to be convinced that if they wish to cure disease they can do it best by true antidotes. Antidotal remedies are invaluable beyond all conception, and in the hands of a good physician will increase vastly his usefulness, and redound wonderfully to his fame. If he knows of no true antidote, then he can only with advantage use palliatives. They require in their exhibition much judgment, neither to reduce the patient below the standard requisite to his recovery, nor stimulate him to a higher standard than his system will bear without injury; in a word, to treat the symptoms as they arise, and so control and manage them as to save his patient while the disease is running its course. The true antidote, however, will at once cure the disease. It should be borne in mind that there are many diseases which, if allowed to continue unchecked, will always terminate fatally; and antidotes only, not palliatives, can save the life of the patient.

CHAPTER XXX.

CATHARTICS.

NATURE AND USES OF CATHARTIC MEDICINES.

The human system is constructed to continue in being and in health for a great number of years, even for more than one hundred in many cases, and until it gradually declines from the effects of old age. Man never dies before old age except from injuries, accidents, or poison in the blood.

Injuries may arise from direct violence, or they may result from slightly injurious impressions, which, continuing for a great length of time, accumulate augmented effects, and finally, either alone or with other causes, produce death. These influences, if they do not directly cut off the thread of life, often reduce the system to such a state as will render it unable to resist the ordinary depressing influences of heat, cold, labor, exposures, privations, &c.

I have elsewhere shown that the system falls into disease and fails in its powers from loss of symmetry or from poisons in the blood; and that these two are almost universally the cause of disease; and then the closing or stoppage of some of the great emunctories of the system, as the skin, kidneys, bowels, lungs, will rouse these causes into active operation.

It is indispensable to life and health that the circulation of the blood be equal and even throughout the system—that no organ has too much and none too little. For example, the head should not be hot and feverish and the feet cold as ice, showing too much blood in one part of the system and a great deficiency in another. Unequal circulation long continued will always produce disease; and where disease is present, even in a slight degree, there is no guarantee, if it be allowed to continue, that the life of the person can be safe, and the probability is that the disease will be spread throughout the whole system, and thus destroy life.

This unequal circulation may overload the brain or its coverings

with too much blood, or it may have the same effect upon the lungs, the heart, liver, bowels, skin, kidneys, sexual organs, or upon the extremities, as we see in swelling of the feet, and also of the person generally.

Various organs of the body are often made the receptacle of accumulations, such as phlegm or mucus in the throat and chest in pneumonia, bronchitis, and consumption—bile in the stomach, or retention of food or excrementitious matter in the bowels, which become a mechanical obstruction, tending greatly to irritate the system, and often destroy life. Obstructions may also take place in the gall-bladder by accumulations of gall-stones, and stone and gravel may be deposited in the chambers of the kidneys, bladder, uretha, &c., by which great injury is necessarily produced; and if allowed to go unremedied, death is sure to result. There are other accumulations, such as a superabundance of fat, which, in early periods of life, are often exceedingly dangerous, rendering the persons liable to sudden attacks of acute diseases, which, occurring under such circumstances, are apt to prove fatal. In later life, fleshy individuals are subject to obstruction of the circulation, which often results in dropsy. Such persons have not, as a general thing, the largest expectation of long life.

In order to live long, it is necessary to keep the system vigorous and healthy from day to day; and in order to be healthy, all the organs of the body must act naturally and harmoniously. The person must not be too fat or too lean, but possess a sufficient quantity of flesh and juices to fully sustain all the vital forces of the body, and the *maximum* strength of which it is capable. When this condition is maintained, the system will continue in health, in a vast many cases, to at least one hundred years. But suppose that, instead of health, we find a state of disease—some organ of the body reduced in its powers, the blood circulating unkindly and unequally through the body, and impregnated perhaps with poison—what are we to do? What is the readiest and best means by which the blood can be restored to purity, the engorged state of the organs relieved, and health restored most certainly and most promptly?

In all cases of engorgement, whatever the congestion, whether of a whole organ or a portion of it, if its functions are in any way impaired, the way to relieve the organ is to unload more or less the whole system, so as to derive from the diseased organs to those that

are not diseased. The great emunctories are the skin, lungs, bowels, and kidneys; slightly the system may be relieved, in some cases, through the nostrils; but the lungs, bowels, kidneys, and skin are the four principal avenues through which foreign matter, accumulating in the system or any of its parts, may be thrown off, and the system thereby relieved.

HOW THE DIFFERENT EMUNCTORIES ARE RELIEVED.

To unload the lungs through themselves is often a dangerous process, and in most instances entirely impracticable. Still, the system may sometimes be relieved in this way by the use of expectorants, or such medicines as induce in them an increased secretion of phlegm or mucus. But, as a general rule, where the lungs are much congested, we cannot rely upon reducing the engorgement through themselves, but must resort to the other emunctories for this purpose. In fact, it may be laid down as a true maxim in nearly all cases, never to attempt to reduce the system through any organ already too highly excited, but to open the other emunctories and allow the diseased or obstructed one a certain amount of respite and quiet.

OPENING OF THE SKIN.

In all cases of fever or inflammation, it is found extremely beneficial, and, indeed, indispensable in acute diseases, to open the pores of the skin and bring on perspiration, which may be continued for one, two, or three days, and sometimes longer if the fever does not yield sooner. But in chronic diseases we cannot make so much use of the skin for the continued relief of the system, because this constant opening of the pores, if too long continued, will lead to great debility of the system. Still, limited relief may be obtained in this way without injury, by frequent and free ablutions in water of such temperature as is agreeable to the patient and consistent with his strength. Much benefit is received in this way, in many cases, in our water-cure establishments. Some complaints are permanently cured there, others are temporarily relieved; but in many cases this treatment becomes wholly inadmissible. It is found that this system of treatment is very generally omitted after a short period, whilst in thousands and tens of thousands of cases we have to employ some

remedies for a series of years to overcome and finally cure the chronic derangement of the system.

OPENING OF THE KIDNEYS, OR THE USE OF DIURETICS.

There is a vast number of cases where diuretic treatment becomes of very great importance, as in instances of dropsy, to relieve the system of watery accumulations; but beyond a certain regular secretion of urine, the kidneys will not long act without producing irritation, excitement, and disease of those organs. Therefore it is useless to depend upon diuretic treatment, or to expect relief except for a limited period of time; as disturbance of the kidneys, bladder, and so forth, would be sure to result from a long-continued use of strong diuretics.

Diuretics are and must be thoroughly used in dropsy; but even in this disease, where the treatment is too long continued, there is danger of injury to the kidneys. Diuretics may be temporarily employed in acute diseases, in bad colds, or suppressed perspiration, with advantage.

Experience has now taught physicians, universally, that the system cannot be permanently relieved from chronic diseases through the lungs, kidneys, or skin; that is, by the use of expectorants, diuretics, or diaphoretics.

There is another mode of reducing the system, viz., abstinence. Let us consider this for a moment.

ON ABSTINENCE.

The question is often asked, "Is it not better to withhold food from the system, and in this way do away with the necessity of using extraordinary means to unload it?" Some say, diet your patient, starve your patient, and you will avoid the necessity of employing any medicines or remedies to reduce or unload the system or any particular organ.

There is no doubt but that in all acute diseases, in every form of fever and inflammation, in all affections that tend to reduce the powers of the system and weaken digestion, dieting is of immense benefit; and every successful physician often counsels withholding entirely all solid food and all food that excites the stomach, and this

with most decided benefit; but when there is no acute affection present, nor any sudden disorder, the case becomes widely different; and although we would unload, we do not wish to reduce the system. The patient may have active, laborious duties to perform each day—it may be is a nursing-mother—thus, in many instances, even if advisable, it is not convenient to reduce the system generally, but it must be reduced locally, because there cannot be borne such a loss of strength as must accrue from great reduction of food. Much may be done in selection and choice of food—eating only that which experience has found to agree best with the system. The practice of withholding food so that the bodily strength is prostrated from want of sustenance, is injurious to the very last degree. Such dieting, if long continued, will weaken the stomach, and bring on such debility of that organ as to prevent digestion of the food, and after a while the patient may become hopelessly dyspeptic from mere abstinence. For this reason dieting, as a general rule, cannot be depended upon for the relief of chronic diseases. It is usually rejected by patients who, after reducing and debilitating the digestive organs by abstinence, wisely return to better living.

Care should always be taken, as we have before remarked, in the selection of food, in masticating it well, in the regularity of the hours set apart for eating, and in taking just a sufficient quantity to sustain the powers and preserve the ability to pursue the daily occupations, or take the daily amount of exercise, which, however, should never be carried beyond the point of moderate fatigue. But in order to accomplish this daily exercise, the patient must eat and not starve himself.

No wound will heal, no recuperative action of the system will take place, no diseased organ will be restored to health as a general principle by a continued course of abstinence, carried to the extent of prostrating the system for any considerable length of time.

I have often observed the distressing effects of abstinence in this climate during the days of Lent, when many abstain from animal food and yet attempt to continue their daily labor. Not a few from this cause sink into consumption or some other disease, and become invalids for life. This is particularly the case with many mothers, whose religious impressions or obligations will not allow them to eat meat during Lent, and who from this cause become exceedingly reduced and prostrated, greatly injuring themselves and their nursing infants.

We will now inquire into the probability of relief through the fourth great emunctory—the bowels.

THE BOWELS THE GREAT EMUNCTORY THROUGH WHICH TO RELIEVE THE SYSTEM, ETC.

Having considered the three emunctories—the lungs, kidneys, and skin—and found that through these the system may be relieved to a certain extent of accumulations of foreign matter, and often very efficiently, we now come to the consideration of the fourth and still more important emunctory, the principal outlet of the system, viz., the alimentary canal. By the "alimentary canal" is meant the whole channel, with all the cavities and receptacles through which the food passes from the time it is taken into the mouth, embracing the entrance to the stomach, the duodenum or second stomach, the small bowels, the colon or large bowels, and the rectum, constituting a canal of about thirty feet in length, and presenting a very large internal surface to be acted upon by whatever passes through it. Accumulations of matter, both from the waste of the food and secretions from the surface themselves, are of frequent occurrence throughout this great canal, occasioning, to a greater or less extent, obstructions sometimes in one place and sometimes in another, it being true that one part of this canal may be active while another is exceedingly sluggish. It is this great emunctory which constitutes the chief medium of relief to the system, or to any one organ of the system, when suffering from stagnation of the circulation, from congestion, from obstruction, from too little or too great secretion, swelling, &c. It is also a great medium by which poisons in the blood may be eliminated and rejected from the system.

The remedies for relieving the stomach and bowels are called aperients or cathartics. Many persons reject cathartic medicines on the ground that they may in some way injure the system, and that it is better to regulate the bowels by diet than by the direct use of remedies that shall stimulate and move them. We do not deny that something may be done by dieting to relieve costiveness in some persons; but in many instances, dieting for this purpose is quite ineffectual; indeed, it is not unfrequently the case that in any attempt to *diet*, the very food selected aggravates the difficulty. It may be that *dieting* in some persons relieves the costiveness; but this is

done at the expense of weakening the stomach and bowels. The late justly celebrated Dr. Physic of Philadelphia, who had a large experience in the exhibition of chronic remedies, told me that he considered that the coarse articles of food often recommended for the cure of costiveness acted only by disagreeing with the stomach and bowels, and were in a measure injurious to the system itself. It is well known that some articles of coarse food are capable of accumulating in the bowels in the shape of balls, and produce vast injury. This is the case with the coarsely ground oatmeal as prepared in Scotland, and eaten mostly by the peasantry and laboring people. Raw fruit, such as apples, grapes, peaches, strawberries, &c., will do something towards opening the bowels; so will coarse bread and "grits" of different kinds. All these different articles seem slightly to benefit invalids; but there are many exceptions in which they disagree with the patient, and do much more harm than good. In thousands of cases necessity requires that medicinal preparations be used to open the bowels daily. When properly administered, they constitute the best means of securing relief, as we can graduate their quantity and govern their effects so as to relieve the system, or any organ, without prostrating the strength or injuring any part. Some articles of medicine are, of course, much better to effect this purpose than others.

WHAT SHOULD BE THE CHARACTER OF THE APERIENT OR CATHARTIC MEDICINE WHICH WE PROPOSE TO EMPLOY.

In making choice of a cathartic remedy, we should select something that will commence its action in the stomach and continue it gently but effectually through the whole alimentary canal, quickening the action of the stomach, expelling the vicious secretions, the superabundance of bile and acidity, relieving the gall-bladder if overloaded with bile, and removing all other obstructions that may exist in these organs, pursuing its way through the small intestines, relieving them from all foreign bodies and the accumulation of excrementitious matter, carrying it forward into the large bowel, and sweeping out all accumulations in the crypts of the colon, and at the flexures of this great organ, terminating its course finally by freely evacuating the large bowel or rectum; thus relieving the whole system, and particularly any organ affected by a redundancy or by impurity, of its contents.

The effect of such a cathartic is to cleanse the stomach and bowels not only of excrementitious matter, but from undue secretions of mucus. It is well known that there are many persons who, during all periods of life, from infancy to old age, are affected with superabundant secretions of mucus in the bowels. They become loaded with great quantities of this cold stagnant matter, checking and obstructing the lacteal vessels which absorb the chyle and nutritious matter of the food. Sometimes the obstruction is so great that it prevents the proper nutrition of the system to a very great degree, breeding great quantities of worms both in the young and old. I have known as many as three quarts of worms to pass from the bowels at one time.

Sometimes the presence of this cold, slimy, superabundant mucus in the stomach produces a sallow, inanimate expression of the countenance, with colorless cheeks, the surface of the body becoming cold and flabby, the vitality low throughout the system, the digestion impaired, the strength weakened, and the circulation languid and frequently irregular. The effect of a proper aperient and cathartic is, in the most kindly and gentle manner to relieve the bowels of this mucus. In these cases, sometimes the bowels are very flatulent and sluggish; and sometimes a slimy "looseness" will take place, hardly amounting to a diarrhœa, but yet with frequent calls to stool, and with scanty evacuations: the bowels will frequently bloat, and occasionally there will be more or less griping and pain. At times great quantities of the accumulated mucus will pass from the bowels, inspiring the patient with much fear and alarm.

The effect of a suitable and efficient aperient will in all these cases be most salutary. By its use for a short time, from a depressed and loaded state of the system, with desponding hopes and sluggish habits, the patient will be entirely restored to buoyancy of spirits and courage; the system will be relieved, and strength will take the place of depression, timidity, and feebleness.

WHAT THE CHARACTER AND EFFECT OF THIS CATHARTIC MEDICINE SHOULD BE.

As a general thing, everybody should avoid drastic purgatives, and especially a continued use of them.

It is a common fault in preparing cathartic medicines to use

only one, two, or three kinds of cathartic substances, selecting such as act very energetically upon some particular parts of the bowels—oftentimes not acting upon other parts at all, nor upon the stomach. The consequence is, that they imperfectly unload the bowels, being too stimulating for one part and not enough so for another; and those parts upon which they do act being too much stimulated, soon become unsusceptible to the impression of any stimulant. We consequently find, that of most of the cathartics prepared, we have daily to increase the dose very much, in order to produce an effect, until finally the bowels will hardly move at all under the influence of any medicine; and not unfrequently an obstinate and permanent costiveness ensues. All such preparations of medicines are truly injurious, weakening the bowels and the whole system. A proper cathartic medicine should act upon the whole bowels equally, and also upon the stomach, without any griping or pain, effectually clearing the stomach and bowels, at the same time giving them tone and strength. Heating and stimulant cathartics dry up the bowels, and hence also increase costiveness, until it is found impossible to use them. In the second part of this work will be found the prescriptions for several varieties of the best cathartic medicines, and which may be used for years without losing their effect, and with constant benefit and pleasure to the patient.

I have known my cathartic pills used regularly every night for twelve years, by persons whose health required them; and who, from being the subjects of chronic diseases, lung complaints, head complaints, dyspepsia, liver complaints, &c., have found their health improving from year to year, until now they are strong, robust, and hearty, able to eat, drink, and endure more than at any former period of their lives.

I will now notice in what diseases and states of the system cathartics should be used.

CATHARTICS IN AFFECTIONS OF THE HEAD.

In the following disorders particularly, cathartic medicines are indicated:—apoplexy, palsy, rush of blood to the head, giddiness, headache, swelling sensation in the head, sleepiness, muddiness of the intellect, inability of continued thought, or intellectual effort, &c., &c.

There are many persons who suffer under one or more of the

above head troubles, who are rendered by them incapable even of pursuing the common avocations of life, and are often in later years subjects of apoplexy, palsy, and sudden death. Apoplexy may occur at any period of life; though formerly more than now, it seemed confined to persons of advanced age. Those persons whose avocations compel them to use their eyes and brain much, such as students, artists, and some mechanics, will find much benefit by the use of suitable cathartic medicines. There are other persons who suffer from rush of blood to the head, produced by bile in the stomach, by intemperance (excessive eating and drinking), by late suppers, attacks of indigestion, &c.; but from whatever cause produced, these persons will find immediate benefit from the employment of suitable cathartics. After a late supper, where too much eating and drinking has been indulged in, and the experience of the parties so indulging must be atoned for by headache on the morrow, and, perhaps, by days of indisposition, as soon as their feast is over, before going to bed, and before these excesses have begun their work upon the general system, they should take a thorough portion of cathartic medicine. Do not wait for these excessive quantities of food and drink to remain and derange the whole animal economy; but take a large portion of properly compounded cathartic medicines; take it in sufficient quantities to thoroughly move the bowels. If this is done, instead of being the subjects of an apoplectic attack, or excessive headache, or fever, on rising from bed in the morning, they will find themselves entirely relieved. Then take a very light breakfast indeed, eat very little during the day, giving the stomach and bowels repose. If not perfectly relieved, take another dose during the day, or at bedtime, and you may calculate upon most effectual and complete relief from the effects of almost any surfeit. I would not, of course, recommend debaucheries, excesses, or intemperance of any kind;—they cannot be indulged in without more or less injury. But if men will be so foolish as to thus imbrute themselves, this is the best way to prevent, as far as possible, the injurious effects that would otherwise ensue.

Many females are affected by rush of blood to the head and headache from suppression or obstruction of the catamenia, causing great heat about the head and flushing about the face. Such persons will find immense benefit from the use of cathartic medicines patiently employed until the causes of this difficulty are removed by a resto-

ration of the monthly sickness. A great many ladies, at what is called the turn of life, when periodical nature ceases, are attacked with chronic diseases, headache, and various complications of disease, such as bronchitis, cough, true consumption, diseases of the womb, sudden flashes of heat, alternating with attacks of cold and chilly sensations throughout the system, palpitation of the heart, indigestion, palsy, liver complaint, dropsy, apoplexy, &c. It is in such cases, and, in fact, in nearly all cases as the turn of life approaches, that a proper use of cathartic medicines will be found exceedingly useful.

They do not, if properly prepared and administered, reduce the system, but strengthen it, by quietly unloading it for a period by artificially induced evacuations, sufficient to compensate for the natural one that has been suppressed.

It may be safely said, that in all affections of the head whatever, whether of an acute or chronic character, great benefit will be derived from suitable cathartic medicines. This is strikingly the case with persons in advanced life, particularly with men from forty to eighty or older, of full habit, florid countenances, who at times experience a sense of giddiness and dizziness, and who may have suffered apoplectic or paralytic attacks, who find their memory more or less impaired, and a sense of weight about the head, with dulness and drowsiness readily coming over them. Many such persons often forget themselves, and hardly know where they are. As a general principle, these will all find themselves relieved by the use of gentle cathartic medicines, and oftentimes restored to perfect health.

An instance occurs to me, exemplifying the effects which may arise from obstructions in the stomach and bowels, and from de ranged circulation of the blood, indicating the use of cathartic medicines:

Mr. A. B., a resident of Rome, in this State, a man of full plethoric habit, strong and powerful constitution, with sufficient vitality to carry him at least to eighty or ninety years. His appetite was good, and he indulged it by generally eating heartily, sometimes to excess. His health was robust, except that he was subject to occasional violent bilious attacks, attended with colic, diarrhœa, headache, prostration, &c. The alarm which these attacks occasioned, always induced him for a time to be more moderate in the indulgence of his appetite. He was, however, constantly more or less

subject to rush of blood to the head. Thus he went on for many years, growing more and more plethoric, and the general powers of the system gradually giving way, until about his fiftieth year, when he suffered an apoplectic attack. By good medical attendance, good nursing, and a careful regulation of his diet, a fatal result from this first attack was averted, and he measurably recovered his health, though he remained much enfeebled in body and mind; but the pressure upon the brain had given an irreparable shock to the nervous system, the circulation of the blood was left sluggish, and the digestion slow. In this condition he was called to Albany, by some business which required considerable mental effort; and one cold morning after a hearty breakfast, he walked up to the capitol, and fell dead, under another stroke of apoplexy. Now this was a natural and inevitable result. The system had been for years more or less clogged and obstructed; there were constant accumulations of waste matter in the bowels, the blood flowed sluggishly, and not being returned freely from the head, pressed and congested the brain, until apoplexy and paralysis closed the scene. Had there been in this case a full and daily use of proper cathartic medicines, there is every reason to suppose the system would never had fallen into such a condition, and health and life might have been preserved to old age.

Let me add, that in all cases where there is a tendency to plethora or a full habit, to rush of blood to the head, to too much flesh, &c., there should be a free use of cathartic medicines, and then, in addition, great care should be exercised in regard to diet, avoiding every excess in diet, and in bodily and mental effort. Yet by no means should indolence be indulged in. Exertion and activity, properly regulated, are actually necessary in such cases, when by keeping all the great emunctories of the body open—the skin by free bathing, the stomach and bowels by such cathartic medicines as I have indicated—the occurrence of apoplexy, determination of blood to the head, &c., may almost certainly be prevented.

CATHARTICS IN CATARRH, CONSUMPTION, ETC.

In all those diseases which affect the mucous membrane of any part, it is peculiarly salutary, and even necessary, to produce discharges from the mucous membrane of some other organ which is

not already affected. Thus in catarrh, bronchitis, and all throat diseases. In catarrh affecting the lungs, and bronchitis located upon the lungs, in humid asthma, and in all cases of pulmonary consumption, attended with great secretion and large expectoration, it is of vast consequence that we turn the current of secretion and discharge from these organs to the extensive mucous surface of the bowels; and persevere in this course from the earliest commencement of attack until relief is obtained, unless diarrhœa is actually present, when, of course, cathartic medicines cannot be much employed. Cathartic medicines properly employed in the commencement of catarrh, bronchitis, throat affections, mucous discharges from the lungs, and where there is cough, wheezing, short breathing, hemming, hawking, an aching feeling in the chest, cathartic medicines are peculiarly indicated, especially in fleshy persons, and will be found of vast benefit; sometimes in the early stages of these affections they will cure them entirely if perseveringly employed. It is true that in a vast majority of cases further assistance is required, and more and other remedies besides catharties are necessary; but, nevertheless, cathartics should never be omitted unless diarrhœa actually takes place. Cathartic medicines are, it seems to me, indicated from the very fact that in the latter stages of nearly all diseases attended with mucous discharges, diarrhœa is apt to occur, showing that nature herself institutes this mode of relief for organs that are subject to protracted suffering. The cathartic medicines in all these cases should not, of course, be pushed to the extent of greatly weakening the system. I have seen the truth of these remarks verified in many cases, both in the young and old, and in both sexes, but most remarkably so in persons of full habit.

CATHARTIC MEDICINES IN HEART DISEASE.

It has been my experience and lot to treat a great many cases of affections of the heart, commencing with simple irregularity of this organ, through all its states of functional and organic disease. I have treated numerous cases of enlargement, ossification, &c., often attended with pain and great suffering; also cases of *angina pectoris*, rheumatism of the heart, and cases of fat obstructing the action of this organ. In all I have found great assistance from a patient and persevering use of aperient and cathartic medicines. Although

the cathartic medicine is not all that is required in most cases, yet we can scarcely hope for a cure unless these medicines are employed so as gently to assist in the evacuation of the contents of the stomach and bowels every day.

In illustration of this I will give one case:—Mr. —— is a gentleman about forty-eight years of age, a hotel-keeper, not particularly corpulent, with hardly more than ordinary development of abdomen, and yet he was what was called *fleshy*, square built, large chest, heavy in his movement, and his walk almost a waddle. Any active exercise, such as going up stairs, or any quick movement, produced a shortness of breath and a pain in his left side, and about the bottom of his breast-bone. The heart was irregular in its action, with shocks of pain striking through it like electricity or a sudden blow, which would be felt throughout the whole system, and cause sudden impression of fear and distress both in mind and body. He enjoyed a good appetite, but indulged it moderately and temperately, and was habitually careful of himself in every respect. Still, from the condition of the heart and circulation, he was daily liable to palsy and apoplexy, and his situation was altogether a dangerous one. About two years ago he consulted me upon this state of his health, and I prescribed for him. I gave him medicine which should have a specific action on the heart, quieting it and correcting the palpitation. I then directed the use of cathartic pills, the prescription for which will be found in the second part of this work. He has now used these pills every night since I saw him, and he informed me a few days ago, that his health is absolutely perfect, that his heart is relieved in every particular, the pain and fulness of his chest entirely gone, and the head, brain, and mind perfectly clear in all respects. He imputed his relief entirely to the remedies I had prescribed.

I never remit the use of cathartic medicines in heart disease. It is well known that during the hours of sleep the action of the heart becomes langnid and the circulation quite feeble, especially in elderly, fleshy, or delicate persons. Oftentimes upon awaking in the morning the circulation is roused with difficulty; in many persons it cannot be excited, and death is the result; hence it is very well known that many die of heart-disease on their first wakening in the morning.

Now if the cathartic pills were taken at bedtime, they would have

the effect to increase and strengthen the circulation of the blood throughout the system, and giving increased action to the bowels; and this stimulating effect is most salutary and useful, always preventing stagnation or stoppage of the circulation during the hours of sleep. It will also carry off the contents of the stomach and bowels, partially, so that the heart is relieved from any undue labor. In enlargement or thickening of the valves, the judicious use of cathartic medicine will reduce the size of the heart, correct the thickness of the valves, and thus materially contribute to the cure of the disease; whilst as a preventive measure, in those who have reason to fear an affection of the heart from its being hereditary in the family, or from any other cause, it will be found that the use of cathartic medicines is the best possible means they can employ.

USE OF CATHARTIC MEDICINE IN STOMACH COMPLAINTS.

In many cases of dyspepsia and stomach complaints, the stomach, unable to act upon the food, retains it for a long time, and there it ferments more or less, producing flatulence, belching of wind, acidity, and all the disagreeable and distressing effects of indigestion. Palpitation of the heart will often be produced by it; also pain in the stomach, chest, back, between the shoulders, and as it were streaming up towards the collar-bones, loss of appetite, unnaturally craving appetite, soreness at the pit of the stomach, sinking feeling in the stomach, low spirits, &c.

I here subjoin the remarks of the late Sydney Smith, well known as one of the most observing and witty men of his times. These remarks result from mature experience.

"Happiness is not impossible without health, but it is of very difficult attainment. I do not mean by health merely an absence of dangerous complaints, but that the body should be in perfect tune, full of vigor and alacrity.

"The longer I live the more I am convinced that the apothecary is of more importance than Seneca, and that half the unhappiness in the world proceeds from little stoppages, from a duct choked up, from food passing in the wrong place, from a vexed duodenum, or an agitated pylorus. The deception as practised upon human creatures is curious and entertaining. My friend sups late, he eats some

strong soup. Then a lobster, then some tart, and he dilutes these esculent varieties with wine. The next day I call upon him. He is going to sell his house in London and retire into the country. He is alarmed for his eldest daughter's health. His expenses are hourly increasing, and nothing but a timely retreat can save him from ruin. All this is the lobster; and whenever excited nature has had time to manage this testaceous incumbrance, the daughter recovers, the finances are in good order, and every rural idea effectually excluded from the mind.

"In the same manner old friendships are destroyed by toasted cheese, and hard salted meat has led to suicide. Unpleasant feelings of the body produce correspondent sensations in the mind, and a great scene of wretchedness is sketched out by a morsel of indigestible and misguided food. Of such infinite consequence to happiness it is to study the body. I have nothing new to say upon the management which the body requires. The common rules are the best: exercise without fatigue; generous living without excess; early rising, and moderation in sleeping. These are the apothegms of old women; but if they are not attended to, happiness becomes so extremely difficult that very few persons can attain to it. In this point of view, the care of the body becomes a subject of elevation and importance. A walk in the fields, an hour's less sleep, may remove all those bodily vexations and disquietudes which are such formidable enemies to virtue, and may enable the mind to pursue its own resolves without that constant train of temptations to resist, and obstacles to overcome, which it always experiences from the bad organization of its companion. Johnson says, every man is a rascal when he is sick; meaning, I suppose, that he has no benevolent dispositions at that period towards his fellow-creatures, but that his notions assume a character of greater affinity to his bodily feelings, and that feeling pain he becomes malevolent; and if this be true of great diseases, it is true in a less degree of the smaller ailments of the body.

"Get up in a morning, walk before breakfast, pass four or five hours in the day in some active employment; then eat and drink over night, lie in bed till one or two o'clock, saunter away the rest of the day in doing nothing: can any two human beings be more perfectly dissimilar than the same individual under these two different systems of corporeal management? And is it not of as great

importance towards happiness to pay a minute attention to the body as it is to study the wisdom of Chrysippus and Cranter?"

There is great acuteness and good sense in what Sidney Smith here says, and there is no doubt but that if all would live in every respect as they should—eating none but proper food, only at proper hours; sleeping neither too little nor too much; spending a sufficient portion of every day in out-door exercise—physic might be "thrown to the dogs" pretty generally with advantage. But men will not all live thus. "Lobsters" and "tarts" and "strong soup" will, spite of preaching, continue to "vex the duodenum" and "agitate the pylorus" in thousands who deliberately and knowingly purchase the pleasures of this hour at the expense of torture in the next. Those who do so are certainly foolish, but to convict them of folly will not relieve their pain nor save them from sickness. It is a kinder act to give them "physic." It is just this class who need cathartics.

In all these instances of ill health I have before mentioned, the use of cathartic medicines to clear the stomach will be found of almost incalculable benefit. Whether this medicine is in the form of pills or a liquid, it should be of such a composition as to act immediately upon the stomach itself, giving it tone, quickening its powers of digestion, and neutralizing the acid which may be too much generated in it, and which may obstruct its functions.

Where there is much acidity such a cathartic may be much aided by a teaspoonful of bicarbonate of potash dissolved in water, which will be found to be of great value; or when this cannot be obtained, pearlash or saleratus may be taken to neutralize the acid. Potash, with its preparations, is an alkali which is far more suitable and congenial to the stomach and to the general system than almost any other. Soda is, I am aware, more generally used than potash, but it is not as salutary nor as beneficial, and if used to a great extent is exceedingly apt to injure the stomach, while potash may be used occasionally in small quantities, for years, without injury and nearly always with great benefit. In all cases where persons suspect the presence of too much bile in the stomach, they will find the use of anti-bilious or cathartic medicine extremely beneficial, but they should not, on any account, take mineral or mercurial cathartics, which are almost universally prescribed by physicians. They are

of very little if any benefit in dyspepsia, and where there is an excess of bile in the stomach they will weaken that organ, and often do it great injury. They should never be employed for any length of time in stomach complaints.

CATHARTIC MEDICINES IN LIVER COMPLAINTS.

In all cases of liver complaints, or abstraction of the gall-ducts, of retention of bile in the liver, or where the liver is torpid—as in jaundice of every description—in inflammation of the liver, in cases of a superabundance of bile flowing from the liver, properly prepared cathartic medicines, judiciously employed and administered, will produce the most happy results, and are nearly absolute curatives. Persons inclined to liver complaints need not fear the free and frequent use of cathartic medicines. I would, however, earnestly advise them to be very cautious in the use of mercurials, for, if long continued or much used, they will of themselves cause disease of the liver. Thousands of persons whilst using mercurial medicines to relieve the liver are doing the worst thing they can to injure it.

CATHARTIC MEDICINES IN BILIOUS FEVER AND AGUE AND FEVER.

Whilst on the subject of bilious complaints and liver affections, and the benefit of cathartic medicines for them, I am led to say a few words upon the use of cathartic medicines in bilious fever and ague and fever. They will always be found of great benefit and are all but indispensable. During the premonitory symptoms of ague and fever, which will often occur several days before the fits come on, the patient will derive much benefit from cathartics; they will often throw off or prevent the attacks of the fever. So also after the fits of ague and fever have been broken up, the patient should continue the use of the cathartics for at least twenty-eight days, and this will generally prevent relapse and a recurrence of the disease. It is well known by all persons acquainted with the phenomena of ague and fever, that when the fits have been stopped by the use of quinine or any other proper remedy, the patient will be liable to a return of them on the seventh, fourteenth, twenty-first, or twenty-eighth day; and that if he escapes twenty-eight days without an attack, he may calculate that he is safe from the disease for that season.

The reason why the disease occurs at those particular periods, is supposed to be from the person's becoming bilious; the liver, becoming engorged with bile, deranges the system, and thus brings on fever. The specific poison which produces the ague and fever is supposed to accumulate in the system during this period, that the chills are caused by it, and that the fever is an effort to throw it off. In these cases, although the patient should be quite weak, cathartics may be used with tonics and stimulants, and they will produce the very best effects upon the system in nearly every case, and often will prevent relapse, or render the disease, if it does return, very moderate and of short duration. The effects of gentle and properly prepared cathartics are equally beneficial in all cases of bilious fever; they contribute vastly to arrest its progress, usually shielding the patient from any dangerous consequences; and very often they will, if used in the early stages, prevent its taking a typhoid character, and may check and cure it in its very commencement.

CATHARTIC MEDICINES IN DERANGEMENTS OF THE BOWELS.

In all cases of costiveness, slow, sluggish, and weak bowels, in a cold and inanimate state of the bowels, in cases of heat, pain, colic, and feverish state of the bowels, &c., cathartic medicines are entirely indispensable. They should be used in moderate quantities, but still sufficient to make the bowels regular in their action. This may be done with almost absolute certainty and with perfect safety if the right cathartic agents are selected; and the patient need never become prostrated or weakened. In chronic diarrhœa, mild cathartic medicines are beneficial, even when at the same time we are forced to employ astringents, and even opiates, to check a too great action of the bowels.

In multitudes of cases of chronic diarrhœa, some portions of the bowels will become too inactive, and their contents remain bound at the sluggish points, becoming hard and acrid, thus producing or originating chronic diarrhœa, and sometimes even ulceration of the bowels. In these cases, a little gentle cathartic medicine may be used with good effect to cleanse the bowels of this foreign matter, and to equalize their action throughout their whole extent. This is not at all incompatible with the use of astringents and opiates; but, of course, cathartics must in such cases be used with great caution and dis-

cretion, or they will produce mischief instead of benefit. In all cases of piles, however produced, gentle cathartic medicines will be found to give great relief, and should be employed until all vestige of this disease is removed.

CATHARTIC MEDICINES IN KIDNEY COMPLAINTS.

I have found cathartic medicines extremely beneficial in all cases of kidney complaints where the urine is scanty, high colored, or scalding, or where large quantities of mucus are discharged from the bladder or kidneys, and in catarrh of the bladder. In all these cases I have found cathartic medicines most useful, and, as I may say, indispensable; for it seems to me foolish to attempt, and indeed impossible, to effect a cure without their use. By opening the bowels, we substitute an artificial discharge for the natural action of the kidneys, and at the same time relieve them from humor, oppression, and congestion; and then, in most instances, a slight additional use of mild diuretics will bring them back to a state of health.

In cases where there is too much water, and where there is a constant alternation from too large to too small a secretion of the urine; in cases where it is too highly colored or entirely colorless, also in diabetes itself, we shall find suitable cathartic medicines of very great benefit.

THE USE OF CATHARTIC MEDICINES IN FEMALE COMPLAINTS.

In all cases of retention or suppression of the monthly sickness in females, especially when attended by costiveness, when unaccompanied by actual diarrhœa, cathartic medicines are usually of great service, and in many instances will, if judiciously and continuously employed, entirely restore the suppressed function to a natural and healthy condition. In cases of leucorrhœa, or female weakness, accompanied by slow bowels, great benefit will be derived by the use of these medicines if persevered in; and if not given in such quantities as to depress the strength, will oftentimes effect a cure. In congestion of the womb, in swelling, enlargement, or hardness of that organ, in almost every possible form of its diseases, and in every case of flooding, cathartic medicines will be found of the greatest service; they may be used freely or moderately, according to the strength of the patient. They should not be employed so as to pro-

duce of themselves much prostration of the system; but it is much better to have the system prostrated by the use of cathartic medicines, thus drawing the discharges from the womb to the bowels, than to have them prostrated by bleeding from the womb itself.

The above remarks I mean to apply as well to those cases of bleeding from the womb which are supposed to be cancerous, occurring in females immediately after the natural cessation of the menses, as in every other case of flooding or excessive menstrual discharges, occurring more or less periodically. In youngerly ladies, either married or single, it will be found that a judicious and proper use of cathartic medicines persevered in for some time, will assist greatly in producing a cure, and their use should not be omitted.

PAINFUL MENSTRUATION.

In all cases of painful menstruation, which may sometimes become very terrible, weakening the patient, and greatly prostrating the powers of life, moderate cathartic medicines are often of very great benefit, especially if the patient is troubled with costiveness.

USE OF CATHARTIC MEDICINES IN PREGNANCY.

Pregnant females are, in a vast majority of cases, liable to become more or less costive—great sluggishness of the bowels taking place many times; and they are also apt to be troubled with colic pains in the bowels and more or less flatulence. In all such cases gentle cathartic medicines are of very great benefit: they contribute exceedingly to prevent miscarriages, and to allay all the sufferings incident to that state, and to prepare the way for a free and safe delivery of the child at its full term.

USE OF CATHARTIC MEDICINES IN CONGESTION.

In every case of congestion in any portion of the human body, whether occurring externally or internally, suitable cathartic medicine will contribute very much towards relieving it and inducing health.

CATHARTIC MEDICINES IN SCROFULA.

In every form of king's evil, or where there is a manifest tendency to it, cathartic medicines, if of a proper kind and properly employed,

become almost positive curatives, hardly requiring, in many cases, any other remedy whatsoever.

SALT-RHEUM, SCALY LEPROSY, ETC.

In all of these cases, without exception, a moderate use of the proper kinds of cathartics will contribute greatly to their cure, and they should be continued as long as the patient is afflicted with these external complaints.

FOR CARBUNCLES, BOILS, ETC.,

Cathartic medicines are eminently valuable, and cannot be dispensed with with safety. In the early stages they will check the formation and development of the boils and carbuncles, and will purify the blood much better than the crisis of boils; for it is far better to rid the system of impurities by the aid of cathartics than by the critical development of boils and carbuncles.

CATHARTICS IN RHEUMATISM.

There can hardly be mentioned a disease where cathartics can be more useful than in rheumatism. Rheumatism arises from poison in the blood, affecting either the whole system or particular parts of it, and a faithful, patient use of cathartic medicines will carry off the poison with very little assistance from other remedies. Their use will always prevent the rheumatism passing from one part to another, and from settling upon the lungs, stomach, and heart. The same remarks apply to all cases of neuralgia, where cathartic medicines may be used with most excellent effect, and should never be omitted.

CATHARTICS IN GOUT.

This is now a disease rarely occurring in this country, and yet fifty years ago it was very common, particularly among the gentry and easy classes. Where it does now occur there is no possible remedy superior to that of cathartic medicines to draw forth from the system the poison by which the gout is produced. I feel fully persuaded, from long experience and observation, that a moderate use of

cathartic medicines will entirely rid the system of gout in all cases where they are used continuously and for a long time.

USE OF CATHARTIC MEDICINES AFTER THE SUPPRESSION OF ERUPTIONS OR OF CRITICAL DISCHARGES.

Many persons lose their lives by the accidental or artificial suppression of critical discharges. These discharges may be from the ear, from the legs, or from any other parts of the body, and may have been long-continued running-sores. Some persons have chronic eruptions and skin diseases, which suddenly disappear and recede upon some of the internal organs, perhaps to the brain, perhaps to the heart, often to the lungs, and sometimes to the stomach or bowels. Now in all these cases cathartic medicines are of infinite value, for they make an artificial vent or outlet for the impure or poisonous matter which by the suppression has determined to these organs. Physicians often in these cases employ ointments, particularly on old sores and eruptions, by which they are not unfrequently suddenly dried up; leading in some cases to the most disastrous consequences. I have often known injudicious applications made to piles of long standing, suddenly suppressing them, and causing apoplexy in elderly persons, and other most serious internal diseases. Dropsy in others will often result from this suppression. Now while closing such issues, we should not wait for any dangerous consequences to develop themselves, but should commence using daily gentle cathartic medicines so as to produce full evacuations, continuing them for a long time, until the system is fully relieved from the necessity and habit of having issues of any description. I cannot speak too highly in favor of the use of cathartic medicines in these cases; they, in fact, constitute almost *life-preservers.*

CATHARTICS FOR SALLOW COMPLEXION, PIMPLES, SPOTS, ETC., ON THE FACE.

In all cases of sallowness of the complexion, red blotches, eruptions, redness of the face, heat and fever, humor, pimples, brown spots, &c., and annoying blemishes on the face, which are very common, not unfrequently making the most terrible ravages, especially with female beauty, and extinguishing its best hopes and promises, cathar-

tic medicines will usually be found most efficient in removing them; and their use should be continued until the complexion is clear. I have always found in treating these cases that catharties were of the greatest value, both as preventives of such a state and as curatives after it has taken place, as also preventing a recurrence of it after a cure has been effected. Other medicines may be necessary, but opening medicines are most useful, even if the bowels are perfectly regular.

CATHARTIC MEDICINES FOR IMPURITY OF THE BLOOD.

Very many persons are fully conscious of having impurity of the blood. In some a slight wound will not heal as it will in healthy persons—a scratch becomes a sore. In others, a little friction or rubbing develops erysipelas: if they take cold, it will show itself in an attack of erysipelas, or other form of sores or skin disease; and in a great variety of ways they have learned that their blood is impure. They observe these effects most in the spring and fall, the changeable seasons of the year. Such persons will find a judicious use of cathartic medicines to be of great benefit, and often sufficient to cure or prevent any of the bad effects which may result from an impure state of the blood.

EFFECT OF CATHARTIC MEDICINES IN OBESITY, OR TOO MUCH FAT.

I have long since concluded that the excessive development of the fatty tissues, or secretions of fat in the human system, arises from humor in the blood. I have had occasion to notice this in many instances, and that often in families, one or more of whose members would become very fleshy, and another would develop various forms of scrofula and skin diseases or eruptions, &c. In these cases the fleshy ones would remain in tolerable health for some years, and finally die of apoplexy, dropsy, disease of the heart, liver, or some other internal disease. I have no doubt that in some persons high living and indolence will produce corpulency, but in others it will not have this effect, and all that can be done will not induce a fleshy state. But there are those who become enormously fat, and yet have not a great appetite, and are often temperate eaters; so also I have noticed that in many cases the children of very fat persons will incline to consumption, dropsy, liver complaints, or skin

diseases. These facts lead me to the conclusion that a tendency to excessive fatness or obesity is caused by humor.

Now excessive fatness can always be prevented, and usually even after persons have become very stout, they can be perfectly relieved of this superabundant load of fat. The remedy is in the judicious use of cathartic medicines; not such a use as will produce great prostration, but as will reduce gradually the weight of the system. If a person has a weight even from one to two hundred pounds more than is natural to him, he may employ such means as will reduce the weight, and among these none are more efficient, certain, and safe in their effects than properly prepared cathartic medicines. There should at the same time be employed a moderate diet, with but little fat food, taking brisk exercise daily. In this way they may reduce their weight one or two ounces per day, and in the course of one or two years they will have diminished their weight as much as they desire, without causing any injury to the system whatever.

Physicians will find this worthy of their consideration, as cases will often come under their observation of unnatural or inconvenient developments of fat.

CATHARTICS AFTER A DEBAUCH, AND AFTER SURFEITS FROM EATING, DRINKING, ETC.

There are many persons who, from accident or carelessness, find that they have eaten too much, or have taken food that disagrees with them, which threatens to produce serious effects; such as sudden attacks of headache, fever, inflammations, disturbance of the heart or bowels, palpitation of the heart, congestion of the brain, &c. In such cases the immediate and prompt employment of a cathartic will be of immense benefit, and usually will prevent the occurrence of any disease and the production of any mischief by the surfeit. I have known excessive and terrible inflammation of the bowels to result from eating food that disagreed with the patient. Dysentery will often arise from it. In the summer-time unwholesome fruit in improper quantities is often eaten, which is quite sure to bring on this disease if it is at all prevalent. Sometimes young children may eat indigestible food, by which spasms are produced and often death. I once knew a beautiful child to die in convulsions

produced from eating a green apple. Now in every instance of this kind, if the error is discovered immediately after the injurious food is eaten, a mild emetic is the proper remedy to be given immediately. But if an hour or more has elapsed, the prompt use of suitable cathartic medicine, to remove the food before any bad consequence is developed, is usually all that will be required, and the system will be relieved without any trouble whatever. Even where an emetic has emptied the stomach, a gentle cathartic should be given to sweep from the bowels any residue of the crude food that may not have been thrown from the stomach. I cannot impress too strongly these suggestions, nor exaggerate their importance. Every physician and every individual capable of thinking and acting for himself should be aware of the value of cathartics in such cases as these, and thus be prepared to prevent fatal disease and save many valuable lives, which are so often sacrificed from imprudence in the quantity, quality, and condition of the food eaten.

USE OF CATHARTIC MEDICINES IN ASIATIC CHOLERA.

When this terrible disease is epidemic, or occurring to any considerable extent, experience proves that almost any description of food that offends the stomach and disagrees with the bowels will bring on an attack. For example, I have known four young men to lose their lives by eating a dinner of clams when cholera was prevalent; and I have known a young, healthy, robust butcher in this city lose his life by eating apple-dumplings in cholera time. The effect of all kinds of unripe fruit and all improper vegetables is well known to physicians and every person who has witnessed them when cholera has been prevalent. In all these cases I believe that the use of suitable cathartic medicine, taken immediately after eating, or at the earliest period, when any bad effects are apprehended from food that may have been taken, will be of the greatest benefit. When the cholera prevailed here in 1854, a young girl residing in Thirty-first street procured a green apple from an apple-stand in the street and ate it. The following night she was taken with symptoms of cholera—vomiting and purging. In the morning she walked out and met in the street an acquaintance, a young girl, who expressed alarm at seeing her look so ill, and asked her the reason, when she acknowledged having eaten the apple, saying she feared to tell her family of it. The

young girl took her immediately to her mother, an energetic woman, who at once gave her four of my cathartic pills, told her to go home, go to bed and get warm, which she did; but an alarm was soon raised in the house that she had the cholera. A physician was called, who pronounced it a hopeless case. Her feet and legs, almost to her body, became of a dark slate-color, and the medical attendant said she could not live more than one hour; but soon the pills, stimulating the stomach and bowels, produced a general evacuation, so as to relieve the system entirely from the presence of the green apple. As soon as the pills began to control the bowels, the cholera influence was abated, and the influence of the pills superseding it, the offending contents of the stomach and bowels were removed. In four or five hours she entirely recovered from the dangerous attack.

I have no doubt but that in a vast number of cases Asiatic cholera itself may be cured by similar treatment, and by suitable cholera remedies at the same time.

I throw out these suggestions upon cholera because I believe them worthy of consideration, without, however, insisting that they will in all cases prove correct, but I believe they often are; and that the efficiency of the usual cholera remedies would often be much increased if suitable cathartic medicines were employed with them, especially when improper food has been taken.

EMPLOYMENT OF CATHARTIC MEDICINES IN COMMON COLDS, INFLUENZA, ETC.

When any one finds himself attacked, more or less violently, by a cold, or when influenza prevails and an attack of it is experienced, the prompt use of cathartic medicines will be found of great benefit, usually removing the cold, and thereby preventing the long list of diseases which have their origin in suppressed perspiration.

DIET WHILE USING CATHARTICS.

The system cannot be maintained in a state of strength and vigor without sufficient nourishment; and in all circumstances, whether of health or chronic disease, sufficient food should be taken to fully supply the current waste of the body. It is a prevailing error that while

"physic" is being used the person should always "diet;" by which is meant he should for the time being take less food than his system requires. This may be true in some acute or inflammatory diseases, where the design is to deplete or reduce the patient. But it is not true in chronic disorders—in those various conditions for which I have recommended cathartic medicines. In most cases a full, generous diet may be enjoyed at the same time cathartic remedies are efficiently employed. This is a general rule. Of course there may be occasional exceptions; and there are conditions, as in cases of certain humors and poisons in the blood, where we may accomplish much by a proper selection of food. So we would withhold from very fleshy persons oily and carbonaceous food, by which the amount of fat may be increased. Indeed, care in the selection of food should be observed in all cases; always adapting the diet to the peculiar condition and disease of the patient.

There can be no doubt but that, in different constitutions, different temperaments, different conditions of the vital forces, and different predispositions to different diseases, great benefit may be derived from eating food that supplies any deficiency, or that tends to correct any redundancy of any constituent in the system. Thus in hot climates there is no need of eating food of a fat-producing nature. Hence we find the natives of these climates subsisting upon fruits, vegetables, farinaceous food, eating very little if any meat, and that of the lean or game varieties. If they eat fat meat, such as pork, to any great extent, it deranges their systems, it is unpalatable and uncongenial to their natural appetites, and is often ejected from the stomach. If indulged in to much extent, it is found to produce generally diseases of the skin.

Psoriasis and leprosy are supposed to be produced in the island of Cuba by eating the flesh of mangy swine.

Some individuals require the alcohol-producing food; some the food that produces fat; others that which produces flesh; others require stimulants and heat-producing food. It would require a very extended space, much more than I have time to employ, to elucidate all the different subjects connected with diet; but it is sufficient to observe that all persons should study the effects of various kinds of food upon their constitutions—how each affects their health, strength, and personal comfort, and avoid such as produce short breathing, drowsiness, nervousness, sleeplessness, or pain. Sedentary

persons, whose occupations do not permit exercise in the open air, require light food, perfectly cooked, and such as is easily digested, to be taken mostly in the early part of the day; that is, the supper should be by far the lightest meal of the day. Those who are much in the open air, and have much labor and exercise, can eat richer food and indulge in later hours. The hardy out-door laborer, who pursues his strength-requiring and strength-exhausting occupations, must have a hearty, plain food, to be taken at intervals of about five or six hours, and of such quality and mode of cooking as will remain long upon the stomach; such as cabbage, beans, salted pork and beef, coarse bread, &c. It is food of this kind that the laboring man requires, while his dainty neighbor, who is a lawyer, clergyman, student, tailor, or shoemaker, may eat his well-prepared soup, his dainty desserts, and delicately prepared vegetables; such as the mealy potato, the cauliflower, and mashed turnips,—food that is easily digested and remains but a short time upon the stomach. These remarks of course apply to invalids of all descriptions. They should never throw away their own experience for the advice of the wisest and most learned upon the subject of food and drink. It is very rare that two persons are found to agree upon the subject of food, because each forms his opinions from his own experience, and that experience differs in all more or less. Hence each individual's experience is his own best guide.

As a general principle, invalids should always eat that which agrees with them best, and the greater the variety the better. Avoid as much as possible confining the diet to two or three kinds of food. Wholesome carelessness on this subject is fully excusable, and far better than special caution and timidity.

DIET FOR CHILDREN.

The diet of children should be simple and pure, and of the best kind. No highly seasoned food, no pastry, no confectionery, no spoiled or stale food, and no stimulants, should ever be given to them. Children should eat milk, and food prepared from it, such as simple puddings, "hasty pudding," oatmeal pudding, &c. Fruit is very well for children,—apples in the winter; peaches, pears, strawberries, &c., in their season; but in hot weather they should eat of these sparingly, for thousands of children die annually in the hot

weather from eating crude vegetables or excessive quantities of fruit.

I leave this whole subject of diet to the consideration of the reader. He will find it most profitable to himself, and advantageous to his health and strength, to become thoroughly acquainted with the peculiarities of his constitution.

SOME GENERAL REMARKS UPON THE IMPORTANCE AND NATURE OF CATHARTICS—FACTS ILLUSTRATING THEIR EFFICIENCY.

So important does this subject of cathartic medicines appear to me, so far-reaching and beneficial are the effects of this class of remedies—so powerful as preventives, so efficient as curatives, and, when properly used, so capable of lasting benefit—that I feel I cannot impress too deeply on the reader the suggestions I have made. I am aware that there are many who disapprove of their use to the extent I have here recommended; indeed, there are some who reject them altogether. It is a very common opinion even among physicians, that cathartic medicines cannot be employed for any considerable length of time without weakening the bowels and prostrating the system—that after a short time the system becomes insensible to their impression, and that thus even obstinate costiveness will be produced. This opinion grows out of the effects ordinarily witnessed of the cathartics commonly employed,—being the crude, harsh, drastic drugs directly from the apothecary, and almost always some single cathartic agent, such as aloes, salts, castor-oil, calomel, gamboge, colocynth, &c., which act only upon some one portion of the alimentary canal, leaving all the other parts unaffected; thus making it necessary, in order to produce a catharsis, to take enough to violently and injuriously excite and stimulate the part on which the force of the remedy is expended. Of this character are also very many of what are called "patent medicines." Now, I confess that if it were not possible to prepare cathartics that should not have this effect, the opinion above alluded to would be well founded; and we should be obliged to conclude that the less both physicians and patients had to do with cathartic medicines of any kind, the better. But, fortunately, we are not compelled to use any such remedies. It is quite possible to compound and prepare a cathartic medicine, by uniting together several elements, each acting on different portions of the ali-

mentary canal, which will cause a full catharsis, without any injurious stimulation of any part of the stomach or bowels. In such a compound, no one element being in sufficient quantity to produce more than a mild and gentle effect on the part to which it has a specific tendency; but the combined effect of all the elements of such a compound, each acting thus gently upon separate portions of the alimentary canal, being to produce a full, free, agreeable, efficient evacuation, without nausea, or pain, or uneasiness, or prostration, or injury. Such a cathartic may be used any length of time by all classes and all ages, from the infant at its mother's breast to the second and feeblest childhood of old age, with entire safety and with positive and continued benefit. Such a cathartic never loses its effect upon the system, and never causes costiveness, or in any way aggravates the difficulty it is intended to remedy.

From the confidence with which I speak of the effect of properly prepared catharties, it will be naturally inferred that I have succeeded in compounding remedies of the character described, and that I draw my conclusions from my own observations of their use. It is true that I have done so. I have prepared them in both the form of pills and a fluid; and I have considered I was only discharging a duty in placing them as I have done within the reach of all, and earnestly recommending their use. They will be found in most of the drug and apothecary stores in the country. The former are known as my "Vegetable Cathartic Pills," and the latter as my "Antibilious Mixture." In the second part of this work will be found the formula and descriptions of these medicines. I have employed them for many years, and from the beneficial effects I have known to follow their use, I speak with confidence of their very great value.

EXAMPLES ILLUSTRATING WHAT HAS BEEN SAID.

I will give two or three cases in exemplification of what I have hitherto said.

Mr. A—— was a gentleman who inherited from his family a fine constitution, and always enjoyed most excellent health; but in the latter years of his life he gradually increased in flesh, became heavy and slow in his movements, and would have short and wheezing breathing upon any unusual exercise. He had a good appetite, and

lived in the country, where he had both in-door and out-door exercise. His bowels were usually regular, but at length became sluggish, with quite a protuberance of abdomen. Yet he was very temperate in all his habits, regular in his meals, practised no dissipation whatever, and was an excellent husband and father. After many years, not being pressed by the duties of his profession, he became rather indolent; and in the fifty-second year of his age, having become quite fleshy, after an illness of three or four weeks, suddenly died of disease of the heart.

His eldest son consulted me many years ago upon the subject of his father's illness, and upon the state of his own health. He said he was subject at times to pain in his left breast, also to dyspeptic symptoms and slow bowels. This state of things with him had commenced at a much earlier period than with his father. The father when attacked with these difficulties, was about thirty-five years of age, whilst the son was only twenty-one. My recommendations are precisely the same as I have laid down upon heart disease and cathartic medicines. In addition to this disposition to heart disease, the son was strongly inclined to pulmonary consumption, as his mother had died of that disease and several very near relatives. This gentleman had now been employing cathartic medicines regularly for the last twenty-five years; and although many years older at this time than was his father at his death, he is still in the enjoyment of excellent health and the active pursuit of his profession. He has told me that in nine years, I think it is, he has not been absent from his office on account of indisposition three days; and although often threatened by attacks of lung and heart disease, and sometimes fearing their effects, and low-spirited on that account, yet still the employment of the cathartic medicines, taken every night at bedtime, has kept him in excellent health. This course of treatment seems to promise him a continuance of life for many years. He was once brought to death's door by using some popular patent pills, which, though they *seemed* to operate very well upon the bowels, produced mostly watery evacuations, leaving hard lumps to accumulate in the bowels. Finally he was taken sick, and was nearly destroyed by the action of this medicine; but under my directions, and using suitable cathartic medicines, recovered, and ever since has enjoyed most excellent health. The cathartic medicines which he employs do not in the

least lose their effect, always efficiently and never injuriously affecting the system.

I will state another case.

Mr. B—— is a physician of my acquaintance—a very elegant man of about thirty-five years of age, inclining to corpulency of person; of rosy cheeks, clear complexion, brown hair, straight, erect figure, yet of considerable development of abdomen. He is troubled with a *fistula in ano*, and has several times been attacked with scrofulous sores and disposition to the formation of abscesses, and discharges of pus from different parts of the system. His bowels incline to be slow. In this case, had the fistula been cured by any operation or application, and no other discharge from the system substituted, the consequences might have been fatal. The remedy recommended in this case was the free and constant use of gentle and efficient cathartic medicines, which would move the bowels every day, to be taken every night, so that they would operate every morning, that they might not weary the patient through the day. He was to bathe in cold water, and employ friction over his person, allowing himself a full and generous diet of any kind of food that agreed with him, employing the cathartic pills regularly, thus keeping the stomach and bowels free from accumulations or obstructions, reducing corpulency, purifying the blood, obviating the disposition to abscesses, &c. By this treatment he was gradually conducted back to health. The fistula, after a few weeks, did not give him any trouble, and required only some simple application to cure it. In all cases where the abdomen is fully developed, I advise, with the use of the cathartic medicines, the abdominal supporter, unless the persons are very short indeed. In the case of Mr. B——, a course opposite to the one I directed, would no doubt have occasioned the early accession of serious disease and premature death.

Before concluding my observations on cathartic medicines, allow me to say, that there are, of course, individuals who do not require the continued or frequent use of cathartics. I do not advise their use where there is no necessity for them. I am an enemy to unnecessary "dosing." When a person is in good health; when all the functions of the body are carried forward with regularity and order; when the laws which govern the system in relation to exercise, rest, sleep, bathing, clothing, &c., &c., are uniformly

obeyed; and where the system has not been impregnated, hereditarily or otherwise, by humor, poison, or the taint of disease, there will be no necessity to resort either to cathartics or any other medicine. So also, as I have before intimated, there are conditions of the person even in disease in which cathartics cannot be employed to any considerable extent; in some diseases not at all. Let me say farther, that I am aware cathartic medicines may be abused and used to the positive injury of the person employing them. They may be taken in too large quantities and of too harsh and drastic a kind; and they may be relied on to the exclusion of other and necessary remedies—such as are absolutely required from the nature of the disorder present. In the use and selection of cathartics, as in that of all other remedies, it is necessary to exercise good sense, sound judgment, and a wise discretion.

CHAPTER XXXI.

THE LAWS OF LIFE, AND MEANS OF PROMOTING LONGEVITY.

In my Six Lectures on Consumption, I have dwelt at some length upon the laws of life and those rules and principles which, when followed, lead to longevity. The importance of this subject, the interest felt in it by nearly every human being, the desire to prolong life, and the dread of death—of that undiscovered country beyond the grave—so deeply impressed upon us all, induces me here to renew it. He who shrinks not from the approach of the "king of terrors" must be either deeply brutalized on the one hand, or highly spiritualized on the other. The first condition is exhibited in the pirate's brutal, insensible contempt of life; and the latter in the triumph of the martyr, who sings hallelujahs while the fire encircles his body, and his spirit escapes amid the crackling flames. But between these two extremes stand almost the entire human race. We must all, therefore, be deeply interested to know how we may ward off the fatal shaft, secure health, and prolong life.

The human body, whether regarded with reference to the perfection of its organization and life-forces, the harmonious relation in which it is placed with the surrounding elements and forces of nature, or the mission and destiny of the immortal tenant inhabiting it, was evidently designed for a healthy, pleasurable, and protracted existence here. It is true that this life was not intended to be without a termination—that we cannot live always—that there are laws impressed upon the body that must of themselves, at some fixed period, terminate its life and dissolve it into its original elements. But it is as true that there are other laws which, if not interrupted or violated, will certainly unfold its life, healthfully and harmoniously, to full maturity, and then conduct it gradually down its decline to ultimate dissolution, in advanced old age, without disease, derangement, or pain. Death, except from old age, is always the result of a violation of these laws;

and these laws are violated either by accidental violence or through the operation of causes and influences which timely care and proper remedies might obviate or counteract. In saying this I am aware I am only announcing a familiar truth—one consciously or unconsciously held by every one. When a death occurs, except from old age, the inquiry at once is, "What did he die of?" We ask for the cause—what cut short the *natural* term of life. We all instinctively feel that it is not nature's work—that something has intervened to thwart and defeat nature. It is undoubtedly true that both the average duration and the usual extreme limit of life—what is called *old age*—are very much less than they would be if the very obvious laws of our physical being were not habitually and grossly violated by us all. How important, then, that we should know what these laws are, that we may better obey them!

On examination of the body after death, we discover, as well from a general survey of the whole, as from a close and scrutinizing dissection and analysis of its various parts, that it is a *mechanical structure—a machine.* To be sure, we see it *at rest*, and we look in vain for the forces that have moved it;—they have fled. The heart that once beat, and the brain that once vibrated, are still and silent; the chords of the nervous system on which once coursed the lightning of the will and the electricity of sensation, vibrate no longer; the electric circuits are broken, and the vital forces have ceased to traverse their accustomed courses, or to animate the various organs to their wonted functions. It lies before us inanimate matter; but still a miracle of mechanism, as wonderful in its complication as it is exquisite in its perfection—the masterpiece of Divine ingenuity and skill.

Now, this wonderful machine, as I have said, has impressed upon it certain laws which presided at its inception and advent, which controlled its life and all life's phenomena, and which handed it over to the embrace of death. Upon those only, however, which are concerned in the preservation of health and the prolongation of life, do I propose to speak, as being the only ones coming within the design of this work.

THE GREAT PROCESSES OF ANIMAL LIFE.

All the processes of animal life resolve themselves into three great classes. (1st.) Those which pertain to the *nutrition* or *alimentation* of the body—the reception and organic construction into the system

of the elements of which it consists. (2d.) The *calorification* of the body, or those functions by which it is supplied with heat. (3d.) The elimination, and *excretion* or casting out, of the non-alimentary and worn-out or dead matter—the matter received in the food which is not nutritious, and therefore not capable of being built up into the body, and also that which, having lived its life and exhausted its vitality as a part of the living organization, has died, and is of no further use in the system. To accomplish these principal processes, there are in operation, of course, a great multiplicity and variety of organs and functions; but they are all, when there is a state of health, harmoniously working together to secure these great results. Let us consider,

(1.) *The process of alimentation or nutrition.*—By *nutrition* I mean the whole series of operations by which the aliment of the food is introduced into the system and converted into organized tissue. The demand for a constant supply of nutriment in the system of the adult, is created by the constant process of death, degeneration, or decay of the elements of the system, continually taking place in nearly every portion of it. Each elementary particle of the body has an independent life of its own; and this life in nearly all parts is exceedingly brief—its duration being in inverse ratio to its activity. It lives its brief life, accomplishes its mission, and then dies, and is carried out of the body; and as fast as the elementary particles thus die and are removed, there is received from the blood a new supply to take their places. We are thus undergoing constant change—the processes of *decay* and *reparation* being continually in active operation.

Preparatory to, and in the accomplishment of this process of nutrition, we find employed many important organs—the masticatory apparatus, the stomach, the liver, the bowels, the lungs, the blood-vessels, the nerves, the absorbents, numerous glands, &c. We obtain our nutrition from our food and drink. We masticate it and deposit it in the stomach, and here our conscious supervision and voluntary control over it ceases. We may exercise our taste, judgment, and skill in the selection, preparation, mastication, and the time of receiving our food; but beyond this we can exert no direct voluntary agency in the process of nutrition. I say no *direct* agency; but a very important indirect agency we may voluntarily exert, as we shall presently see.

The first requisite, then, to perfect nutrition, is an *adequate supply*

of food and drink, containing properly prepared, and in proper proportions, those elements which go to make up the body. We have a wide range from which to select this food—from both the animal and vegetable kingdoms—for from his organization as well as his tastes, there is no doubt that man is an omnivorous animal, and was designed to eat both animal and vegetable food. When we are in a state of complete health and our tastes are unperverted, our appetites and desires are usually safe guides as to the kinds and quantity of aliment we require. They are not, however, infallible guides, as even the unperverted palate *may* solicit merely for gratification that which is injurious. Our instincts are not as perfect as those of the brutes, and reason has been given us to guide us where they fail. The healthy man, however, guided by appetite *under the control of reason*, has usually no difficulty in selecting his food properly, and in rightly adapting its quantity and the time of taking it, to his wants. If he errs to his injury, it is because he gives the reins to his appetite, disregards his reason, and eats simply for animal gratification. There are articles that may tempt the appetite which are always injurious—such as violent stimulants or narcotics, alcohol, tobacco, strong coffee, highly spiced food, much pepper, mustard, vinegar, and the like condiments. These undoubtedly always have an injurious tendency; although a healthy, strong organization may for a long time resist the tendency without any very perceptible harm. If *perfect* alimentation is desired or aimed at, these must be avoided.

The next requisite to perfect nutrition, is complete and thorough *mastication* of the food. As we have seen in the chapter on *Indigestion*, this is essential to rapid and easy solution of the food in the stomach. And let me here remark, that it is a matter to which far too little attention is generally paid, especially among our own people. There is probably no *civilized* race, at least, so given to bolting their food half masticated, as the Americans. There are thousands who, continually under the whip and spur in the keen pursuit of gain or something else—the motto "go-ahead" written on every line of their faces—seem to regard all the time spent in eating as so much *lost* time; they spare it grudgingly, and cut it as short as possible, gobbling up their meals in a few hasty mouthfuls, and swallowing it half chewed. Then they *wonder* that men of such *active* habits have the dyspepsia! Let it be remembered that it is a *rule*—a *law*—of healthy alimentation, which can be violated

only at our peril, that our food must be *thoroughly and completely masticated.*

CONDITIONS NECESSARY TO PERFECT NUTRITION.

When we have swallowed our food, our direct agency in its digestion and appropriation, as I have before said, ceases. But we may indirectly promote or retard these processes. They depend for their perfections upon conditions to which we may contribute and which we may defeat.

One of these conditions is *action.* The human system was not made for absolute rest. Motion—action, exercise—is a law of its nature. It cannot live a healthy life without it. If the body is kept too much at rest, if the muscles do not have their proper play, and the whole frame its needed exercise, all the functions suffer, and none more readily or severely than that of digestion. We find the greatest number of dyspeptics among sedentary people—those who take but little exercise and spend their time in-doors. It cannot be too often repeated that, as a general rule, the food will not perfectly digest for any considerable length of time where there is a deprivation of active daily exercise. Still, the activity of the body may be carried too far, and indigestion and imperfect nutrition induced by fatigue and prostration of the general strength. The system will bear, it is true, a temporary and occasional strain of this kind without perceptible injury; but exhausting labor, exertion, or excesses of any kind, if long continued, will certainly impair the vigor of its functions, and defective nutrition will be the consequence. Over all these conditions we may exercise control.

While it is a law of our nature that action—exercise—properly regulated, is essential to healthy nutrition, it is equally a law that we must have *rest.* We can endure continuous action of either mind or body only a few hours, when we demand rest in sleep to restore our exhausted vitality; and this should be taken at regular intervals, at stated periods, and for a proper length of time at each period of repose. If we indulge in habits of irregularity in regard to sleep; if we take too little or too much; or one night go to bed at nine or ten o'clock, and the next sit up until towards morning—making this irregularity habitual—the whole system will assuredly suffer, and especially the processes of digestion and nutrition.

Another condition of perfect nutrition is a *full and constant sup-*

ply and use of pure atmospheric air. After the nutriment of the food is conveyed into the blood, it is sent to the lungs, where it receives the vitalizing influence of the oxygen of the air, without which it is unfit for use in the system, and incapable of being converted into organized tissue, or nourishing the body. If there is defective respiration or an insufficient supply of pure air; if the chest and lungs are contracted or disproportionately small, or their capacity and power diminished by disease, the blood is not aerated, nor the nutritious elements it contains vitalized. To the extent that there is failure in this respect, will these elements be unprepared for the nourishment of the body, and *nutrition be defective.* The lungs, therefore, play an important part in nutrition; and the condition of these organs, as well as a supply of air for them, is measurably subject to our control. We may, by making suitable efforts to do so, have an erect figure, a large, well-developed chest, and fully expanded lungs, and we may accustom ourselves to the habit of deep, copious breathing. We may also usually avoid breathing a vitiated air, by attention to the ventilation of our houses, shops, offices, &c. If there is *disease* of the lungs, the danger to life from this source alone will of course induce us to make all possible effort to remove it.

Another condition of perfect nutrition is the prompt and complete *removal from the system of all waste and effete matter.* This involves a most important series of functions, which, taken together, constitute, as I have before stated, one principal class of the great processes of animal life. The phenomena connected with it I shall speak of hereafter. I refer to it now only as related to *nutrition.* If the system is loaded with waste or dead matter, the circulation of the blood is impeded, and the organs of secretion and excretion, and all the avenues by which nutriment is conveyed to the various parts of the body, become clogged. It is essential, therefore, that the great emunctories—the skin, bowels, lungs, liver, &c.—should fully discharge their several functions. And here, too, we can exert a voluntary agency. The state of these organs is very much under our control, particularly the principal ones—the skin and bowels. By bathing, ablutions, frictions, &c., we can keep the skin clean and free from the *debris* of perspiration and other impurities, so that the cutaneous exhalations shall be free and unimpeded; and by suitable aperients, if they are at any time necessary, we may maintain the bowels in a state of proper vigor and activity.

Another condition of perfect nutrition is an *habitually equable and pleasant frame of mind.* All violent emotions arrest or disturb digestion; and this is especially true of anger, grief, despair, hatred, revenge, inordinate ambition, and other baleful passions. If they are indulged in habitually, they are certain to impair nutrition and engender disease. A happy, contented, cheerful, hopeful, sunny spirit, we all *expect* to see coupled with rosy health and elastic strength and vigor. There is a world of truth in the old adage, "Laugh and grow fat." All long-lived people are remarkable for their calm, cheerful dispositions. They are those who "take the world easy;" not, however, in the sense that they are passive, listless, or lethargic. But while active and interested in the affairs of life, they do not permit themselves to be weighed down by its burdens, worried by its perplexities, or unduly elated by its pleasures. They submit patiently to the crosses and disappointments they cannot escape, and bear without excessive irritation the wrongs and ills which they cannot avoid. Their sky, even when clouded, is to them bright with hope—there is a sun behind the clouds. They have a conscience void of offence towards God, and smooth their own road through life by their kindliness and good-will to their fellow-men. Such a spirit as this is eminently promotive of bodily health; without it the nutrition of the body cannot be *perfect;* and if nutrition is imperfect, life will be shortened, even if positive disease is not engendered.

But while it is true that a calm, bright, and cheerful spirit is promotive of healthy nutrition, it should not be forgotten that a slothful, indifferent, inactive, listless, purposeless habit of mind is unfriendly to the highest development of bodily vigor and health. Through that subtle and mysterious connection existing between the mind and the body, the condition of our material organization is at all times powerfully influenced by our mental state. A strong will, habitually in exercise, a habit of resolute purpose, and a moderate, not excessive, degree of mental activity, we often find to endow even a comparatively feeble body with remarkable powers of endurance. We generally observe that the commanders of difficult expeditions, and all who assume or have cast upon them great responsibilities in critical emergencies, will endure more hardship, and bear a greater draft upon their strength and endurance, and for a greater length of time, than their subordinates, however comparatively physically frail they may in reality be. The lamented Dr. Kane, in his late voyage of

search for Sir John Franklin, though a small, slight man, bore up amid the terrible exposures, fatigues, and privations of that wonderful expedition, sharing more than an equal part of all, while the hardy, robust men about him sank down and died. Hundreds of similar instances might be cited. Our mental condition has much to do, then, with our health and the duration of our lives; and this is very much in our own control.

But without dwelling at greater length upon nutrition and the necessary conditions of its perfect exercise, I will pass to the other two great classes of functions which pertain to the phenomena of animal life.

(2.) *The process of calorification*, or that by which the proper degree of heat is maintained in the system. We derive the warmth of our bodies from the combination of certain elements in our food with the oxygen of the air—a process which I have elsewhere quite fully described. For the preservation of health and the continuation of life, it is necessary that a very nearly uniform state of heat should be maintained in the body; and so long as the lungs are preserved in a normal condition, as to size and health, while we have a full supply of pure air, take proper exercise, eat sufficient good food, and wear appropriate clothing, this uniformity will be maintained, even though the temperature of the atmosphere about us should sink to sixty degrees below or rise to one hundred and twenty degrees above zero. The conditions I have named are generally under our control. We should see to it that they are secured.

(3.) *The process of excrementition*, or that by which the waste, dead, or effete matter is removed from the system. This is a function of hardly less importance than nutrition itself; and an imperfect performance of it is one of the most fruitful sources of disease that exists. As we have before seen, the elements of nearly every portion of the body are constantly *wearing out*, losing their vitality, and *dying*. There is probably no portion of the body in which this process of degeneration is not going on, not even excepting the bones, the nails, the hair, &c.; although in these the change is very slow, while in the softer tissues and in the blood itself it is exceedingly rapid.

This waste matter has to be carried out of the body as soon as it dies, or it becomes the source of mischief, being to the system and all parts of it a rank poison; and for this purpose there are provided

in all parts of the body thousands of little vessels, whose duty it is to take up and carry this effete matter to some one of the great outlets and expel it—to the bowels, the skin, the kidneys, the lungs, &c. The exact *modus operandi* by which this wonderful process is performed in the hidden penetralia of the body, is of course beyond our ken. But we can conceive that distributed throughout every part, in every—the minutest—interstice, in company with every fibre and tissue, there are infinitesimal absorbents, endowed with the instinct to select from the elements that exist about them such as have parted with their vitality, and convey them to a convenient sluice-way for excretion. This may be called appropriately *interstitial absorption*, as the function by which the new and vital elements are taken up from the blood to supply the waste may be called *interstitial reparation*. It will be at once seen that the perfection of this function of interstitial absorption must depend upon the vigor and activity of the absorbents engaged in it, and that of the great organs—the skin, bowels, kidneys, lungs, liver, &c.—into and through which these absorbents pour their contents; and the condition of these organs depends again, as before shown, upon causes and influences which we may very much control.

We have here taken a hasty glance at the three great classes of functions upon which the continuance of animal life depends, confining our view to the phenomena presented in the adult, not embracing those which pertain to growth or development, belonging as they do to another and distinct branch. And we are now prepared to understand both why it is that disease occurs otherwise than from violence, accident, and the reception into the system of poisons; and why the powers, vigor, and strength decline, finally fail altogether, and death ensues from old age—why it is that human life has a limited duration, resulting from its own nature and constitution. From the view we have taken, it is evident that the laws which govern the phenomena of animal life are few and simple—at least that those are so which lie within the scope of our observation, and which are subject to our interference, either for good or evil. It is true that beyond these there is an unexplored realm of laws, influences, and phenomena, where those subtle forces, evolved by the mysterious union of the spiritual with the material of our being, are setting in motion the *dynamical machinery*, if I may so call it, of our organization. But with these, as we cannot know or comprehend

them, we cannot and need not interfere. They are perfect—always perfect—in their manifestation and action, resulting in the most complete harmony and health, unless violence is done by a violation of the laws which we do know. We are also prepared to understand that if the laws comprehensible by us were perfectly obeyed at all times, no individual of the human race (casualty aside) need to die before reaching the limit of duration fixed by the nature of his organization itself. Death before this period is always the result of violence inflicted on the body, or disease caused by disobedience to law. The former we may not always avoid, but from the latter we may refrain when once the law is known and understood. This brings us to a most interesting question, viz.:

WHAT IS THE NATURAL LIMIT OF HUMAN LIFE?

The statistics of mortality disclose the fact that more than three-fourths of the human race die before the age of thirty, and that the average duration of life is very small. From this fact it has come to be generally considered that the *natural* term of human life is a short one, and that the few individuals who attain old age are exceptions to a general rule—a rule established by our Creator. Is this true? Is man necessarily the short-lived creature which such a supposition would imply? Now it is undoubtedly true that the various races of animals that inhabit our earth have impressed upon their original constitutions a capacity to live a certain length of time and no longer, the term of life differing in the different races. The natural term of life in the eagle, the whale, the elephant, and the tortoise, is greater than that in the horse, the dog, the cat, and the ox; and these, in their turn, are endowed with a longer lease of life than the insect tribes. But whatever the limit of duration of any species may be, the individuals of that species pretty uniformly reach it, unless killed by casualty or interfered with by man. Has man any such limit of life, and if so, what is it? I am for myself persuaded that the human being coming into the world with a healthy constitution, who dies before he is at least one hundred years old, dies before "his time," and in consequence of violence done to his system in some way. In other words, that the human body, acting only under the laws of its constitution, and influenced only by those external forces and elements in which it was intended harmoni-

ously to move, has impressed upon it the capacity to endure in life more than a hundred years. This must be so, or none could attain that age. Aside from casualty and accidental disease, what reason is there that one man should die at thirty, forty, or fifty; and another, no more robust, with no additional faculties or powers, should live a century? There can be none, except that the latter lives in accordance with the laws of his nature and the former does not.

We seldom meet personally with a centenarian; and yet there are several thousands in our own country. It may not be uninteresting to glance at a few of those who have attained, as we are accustomed to regard it, *great* age.

A RECORD OF LONGEVITY.

The *American Medical Monthly* for June, 1856, has the following:

"*Longevity in New Hampshire.*—The following persons lived to one hundred and ten years of age and upwards. Samuel McGuin, of Andover, who died in 1845, 110 years; Wm. Scoby, Londonderry, 1754, 110; John Collomore, Kensington, 1825, 110; Samuel Welch, Bow, 1823, 112; Jenny Kennison, Brookfield, 1840, 110; Robert Macklin, Wakefield, 1787, 115; William Perkins, Newmarket, 1732, 116; Duncan McNaughten, Moultonburgh, 1831, 118; and Zacheus Lovell, Nashua, 120. The date of this last death we do not know. Probably he was the oldest person that ever died in the State."

The *Shrevesport Democrat* (Ind.) of June, 1856, says:

"*An aged Negro.*—We have to record this week the death of probably the oldest man in Louisiana—the old black man Jim, usually known as Dr. Jim. He died on Saturday morning, the 19th inst., aged one hundred and twenty-four years, three months, and twenty-five days. He was born December 24, 1731, in Fredericksburg, Va., as a slave of Capt. John Carter, who served as an officer during the Revolutionary war. Jim was the body servant of Capt. Carter and others through the whole period of the Revolution, was well acquainted with Gen. Washington and most of the other distinguished generals of the war, and was at Yorktown and witnessed the last decisive struggle for independence."

The following is copied from a late number of the *Pittsburgh* (Pa.) *Chronicle:*

"*Death of probably the last Pennsylvania Slave.*—Most of our readers, intimate with the family of Mr. Allen Brown, formerly proprietor of the Exchange Hotel, now the St. Clair, and of Brown's Hotel on Smithfield-street, will recollect an old negress who walked about the house as if she were its

mistress, her gaunt and attenuated figure betokening her as belonging to another generation. As simply Judy Williams she was known to almost every one—her extreme old age and interesting anecdotes of men and days which have long since passed away, rendering her an object of no little interest. Judy is dead. After a pilgrimage of one hundred and five years in this 'world of woe,' she quietly 'shuffled off this mortal coil,' and to-day her remains—what was left of her after the wear and tear of a century—were consigned to their last resting-place, the Allegheny Cemetery.

"Judy was born in the vicinity of Philadelphia in the year 1752, precisely one hundred and five years ago. At that early day slavery existed in Pennsylvania as it does now in the South, and Judy, being a woman of color and the daughter of a slave, was brought up as such in the house of a Mr. Pressley, who resided in Philadelphia. She was subsequently sold to a Mr. Stenchox, a wealthy man residing in the neighborhood of that city, and from him John Brown, father of Allen Brown, and grandfather of the Rev. Mr. J. G. Brown, pastor of the Associate Reformed Church on Diamond-street, bought her in 1770. Mr. Brown then resided at a point called New Alexandria, in Huntington county, and thither Judy was taken.

"In the year 1800, Mr. Brown and his wife Elizabeth removed to this county, and took up their abode on the well-known 'Pumpkin Patch Farm,' in Plum township, which Mr. B. had purchased some six years before. Pittsburgh had hardly an existence then, and outside of a few settled districts here and there, Western Pennsylvania was but little better than a wilderness. Judy accompanied Mr. Brown, and from that time until her death, which took place yesterday, she has remained in the Brown family.

"In 1813, Mr. Brown gave her her freedom. She was then active and vigorous, and continued so until 1839, when she gradually commenced failing, and although her memory continued good, and all her faculties remained in the best order, she was incapable of physical labor since, and lived on the bounty of Mr. Allen Brown, whom she had nursed, and who, up to the hour of her death, treated her with the greatest attention and kindness."

A correspondent of the *Louisville* (Ky.) *Democrat*, writing from Madison, Dec. 3d, 1855, relates the following:

"*A Remarkable Man.*—Having during the last ten years heard the history of Mr. David Wilson—who formerly resided at Carrollton, Ky.—repeated frequently, and which seemed to me fabulous, or which at least taxed my credulity very much, and happening a few days ago to meet with Mr. Alexander Wilson, of North Madison, with whom I have been acquainted for several years, I spoke of his father, and he said what I had heard was correct. He told me that he (Alexander) was the forty-fifth child of David, and David was the father of forty-seven lawful children. He lived to the age of one hundred and seven years, and during his lifetime had five wives. By his first wife he had eighteen children. Very few of his children died in their infancy or youth; and there are now thirty-five of them living who are all men and women full grown.

"David Wilson was a man of pure good health and robust physical constitution. At the age of one hundred and five years he could mow an acre a day for a week at a time without evincing much fatigue. He appeared to have not a rib. The whole region of his breast was shielded by a plate of solid bone, and he could receive the most severe and powerful blows upon it without being hurt. He frequently, for the gratification of others, suffered them to strike him most violently in the breast without being made to feel in the least uncomfortable. During our border wars he was taken prisoner by the Indians, and they attempted to stab him in the breast, but found the solid bone impenetrable. He was one of the most remarkable men that ever lived in America. His progeny were very numerous, and he attained a green old age. At the age of one hundred and seven years, when he died, none of his faculties of mind or body were materially impaired."

In the *New York Tribune* of May 23, 1857, I find the following:

"*Oldest man in America.*—A correspondent of the *Cassville* (Ga.) *Standard* says that there is now living in Murray county, Ga., on the waters of Holly Creek, a Revolutionary veteran who has attained the age of 134. His name is John Hames. He is known throughout the region in which he lives by the appellative "Gran'sir Hames." Gran'sir is contracted for Grandsire. And a grandsire he truly is. As I was on my way to visit this relic of the eighteenth century, I inquired of an oldish man of about sixty if he knew him. 'Oh yes, I know him,' said he; 'he is my grandfather.'

"John Hames was born in Mecklenburg county, Va., and was a lad ten years old when Washington was in his cradle. He was thirty-two when Braddock met his defeat on the Monongahela. He and several of his neighbors set forth to join the headstrong and ill-fated commander; but, after several days' march, were turned back by the news of his overthrow. He emigrated to South Carolina nearly a hundred years ago. He was in thirteen considerable conflicts during the War of Independence, and in skirmishes and encounters with Indians, with Tories, and with British, times beyond memory. He was with Gates at Camden, with Morgan at the Cowpens, with Hill at Hillsboro' and Eutaw, and with Marion in many a bold rush into a tory camp or red-coat quarters."

A correspondent of the *Kentucky Statesman* gives the following sketch of an old citizen in Pulaski county, named Elijah Deny, who is perhaps the oldest man in Kentucky:

"He was 118 years of age on the 10th of September, and is as active as many men of 40. He works daily upon a farm, and throughout his whole life he has been an early riser. He informed the writer that he had never drunk but one cup of coffee, and that was in the year 1848. He served seven years in the war of the Revolution, and was wounded at the siege of Charleston; he was also at the siege of Savannah and at the battle of Eutaw Springs; he was also present at the battles of Camden, King's

Mountain, and Monk's Corner. He served under Col. Horry and Col. Marion, and was an eye-witness of the sufferings and death of Col. Isaac Hayne of South Carolina, an early victim of the Revolution. He is sprightly and active, and would be taken at any time to be a man of middle age. He is a strict member of the Baptist Church, and rides six miles to every meeting of his church. He has four sons and five daughters, all living, the eldest being now in his 78th and the youngest in his 51st year. Such is a brief sketch of this aged soldier and republican, who is perhaps the only surviving soldier of Francis Marion, Sumpter, and Horry."

From the *New York Herald* of a recent date:

"*Death of a very old lady.*—Among the death notices in yesterday's *Herald* was the announcement of the decease of Mrs. Eleanor Hanna, aged 112 years, for fifty years of which she had been a resident of this city. It is so seldom that this age is attained in this city, that a passing notice of this lady would not be out of place in our columns. The maiden name of Mrs. Hanna was McEntee. She was born in the county Monaghan, Ireland, in the year 1744, and came to this country in the year 1808, with her husband Thomas Hannavon, or Hanna, for it appears there is some dispute about the family name. The husband died in the year 1809, since which time she has remained a widow, and enjoyed excellent health till within a few days of her death. Since she came to this city the yellow fever has visited it twice and the cholera three times. She is an old resident of the Tenth Ward, having lived there over thirty years. Mrs. Hanna had seven children, eighteen grandchildren, nineteen great-grandchildren, and several great-great-grandchildren, the oldest of which was seven years of age at the time of her death. Two of her own daughters are still living, and are respectively sixty and sixty-two years of age. During life Mrs. Hanna had very little sickness, and retained her faculties unimpaired to the last."

The following list of aged persons I gather from a variety of sources:

There is now living in Jaffrey, N. H., a clergyman, Rev. Laban Ainsworth, senior pastor of the Congregational Church of that place, who was born July, 1754, and who is consequently in his one hundred and third year. He is the oldest living graduate of Dartmouth College.

Mrs. Elizabeth Demumbrance, of Davidson county, Tenn., died on the 6th of March, 1857, aged 116 years and one month. She was the first white woman settled in Davidson county, and was probably the oldest person in the State.

Mr. Adam Deems, sen., died at Parkersburg, Va., in September, 1856, at the advanced age of 102 years. Mr. Deems emigrated to Wood county before the beginning of the present century, and had since been a resident there.

The *Keesville* (Essex co., N. Y.) *Standard* chronicles the death in March, 1857, of Mr. Joseph Casey, at the poorhouse in that county, aged 114 years

Lewis Sanders Noble, a soldier of the Revolution, and a trooper in Marion's legion, died on the 19th of April, in Clinch co., Georgia, at the advanced age of 104 years.

Died, in Colchester, Delaware co., N. Y., February 23d, 1855, William Holliday, aged 104 years.

Samuel Dan died March 18th, 1855, at Pound Ridges, Westchester co., N. Y., aged 101 years, 8 months, 18 days.

Died recently, near Nashville, Tenn., Aunt Phillis (colored), aged 111 years. Straight, erect; died of old age.

Sarah Canley died recently in Lousiana, aged 107 years.

Died, at Mansfield, Ct., Samuel Dunham, aged 100 years and 20 days.

Died, at Chippewa township, Wayne co., Ohio, Mr. Prouse, aged 104 years, a soldier of the Revolution.

Judge John Woodhull was 100 years old Jan. 7th, 1855, in good health.

Rebecca Hill died at Ware, N. H., Nov., 1854, aged 102 years.

Ann Smith died Oct. 12th, 1854, in Berks co., Pa., aged 100 years.

Died, in Providence, R. I., Seth Yates, March, 1856, aged 100 years.

A lady was living at Johnsonville, N. C., Sept. 17th, 1856, aged 136 years.

August 6th, 1856, died, Sarah Collins, aged 108 years; was a servant to General Washington.

Died, at Toronto, U. C., June, 1856, Sarah Long, aged 119 years: born in New Jersey.

Died, in Essex, Mass., June 15th, 1856, Rufus Cogswell, aged 100 years.

Died, in Philadelphia, May 30th, 1856, Elizabeth Deems, aged 100 years.

Died, in New York, April 17th, 1855, Elizabeth Stillwell, aged over 100 years; lived at 47 Bowery, N. Y. city, over 58 years.

Died, in Parkman, Me., Oct. 27th, 1851, Mr. Peter Judkins, a Revolutionary pensioner, aged 103 years, 1 month, 27 days.

Died, at Columbus, Chenango co., N. Y., Jan. 18th, 1854, in the 103d year of her age, Elizabeth Phillips.

"Said Effendi, Jester to the Sultan of Constantinople, died recently, at the advanced age of 120 years and seven months. He held the post of buffoon under four sultans."—*New York Times*, Feb. 9th, 1856.

Jonathan Records died on the 16th Feb., 1855, at Buckfield, Maine, aged 105 years, a Revolutionary soldier and pioneer; oldest man in Maine but one.

William Shumhill, a soldier of the Revolution, died in Buckenrider, Ky., Jan. 27th, 1855, aged 103 years.

Died, at Richmond, S. C., Nov. 10th, 1856, Wm. Talford, aged 101 years and 7 weeks; born in Ireland.

Died, in Savannah, Geo., Oct. 10th, 1856, Mrs. Catharine Ritter, aged 105 years and 8 weeks. A few years before her death her eyesight was fully restored, as also her teeth, of which she had a full set.

Ann Smith, Berks co., Pa., died Oct. 12th, 1854, aged 100 years.

John Van Hooven, Jefferson co., Tenn., died 1850, aged 122 years.

Mary Cook (colored) died in Norfolk, Va., 1850, aged 120 years.

Molly Perby was living in Mason co., Ky., 1850, aged 112 years.

Adelaide Soulonque died in Mobile, Ala., in 1850, aged over 100 years.

David Kunisson, a Revolutionary soldier, died at the residence of Mr. Meek, Chicago, Ill., Feb. 2d, 1852, aged 117 years.

There was an old man living in Belgrade, Hungary, October, 1852, 172 years old. He was in the possession of all his faculties, and smoked his pipe regularly. Fifty years ago he would go out hunting with his grandsons. It is not quite one hundred years ago he married a young girl of seventeen, whom he survived forty-four years.

There is now living in Pomfret, Vermont, a man named Peter Nassau, who has reached the great age of one hundred and twenty-six years. The *Montpelier Watchman* of May 1st, 1857, says of him: "He was in town on Monday last, and apparently as vigorous as most men at seventy-five or eighty. Peter is a colored man—the oldest 'citizen' of Vermont, and probably of the Union."

No, not the oldest. There is a man still older living in Wisconsin. He is called "Old Crele," and was born in Montreal 130 years ago. His memory is distinct for a period of 117 years. He was married at New Orleans a century ago, and now resides with one of his grandchildren, who is upwards of sixty years old. He is still hale and hearty, and does not appear to be over seventy. These facts are given in a late number of the *Madison* (Wis.) *Argus*.

Death of a veteran Preacher.—The English papers under date of April, 1857, report the death, on the 2d of February, of the venerable Rev. G. Fletcher, at the age of one hundred and ten years. He was born on February 2d, 1747, at Clarbroaf, in Nottinghamshire. From six years of age he had been brought up in the tenets of Wesleyism, and remained a member of that body till his death. He spent eighty-three years of his life in active pursuits. He was at the battle of Bunker Hill, and followed Abercrombie into Egypt, where he gained the esteem and respect of his offieers. He then entered the West India Doek Company's serviee, where he continued thirty-six years, when he retired on their bounty,—still preserving up to within six months of his deeease that astonishing activity of mind and body for which he was so remarkable, often travelling great distances by railroad, and pursuing his holy ealling, preaching two or three times a day, regardless of personal ineonvenience, for the objects of charity and benevolenee.

The eensus of 1850 shows us that the oldest person then living in the United States was 140. This was an Indian woman residing in North Carolina. In the same State was an Indian aged 125; a negro woman, 111; two blaek slaves, 110 eaeh; one mulatto, male, 129; and several white males and females from 106 to 114. In the parish of Lafayette, La., was a female, blaek, aged 120. In several of the States were found persons, white and black, aged from 110 to 115. There were in the United States, in 1850, two thousand five hundred and fifty-five persons over one hundred years. This shows that about one person in nine thousand will be likely to live to that age. Forty-seven persons died in the United States during the year 1856, over one hundred years old. Of these one was 128, one 130, and one 146.

This eensus shows that in 1850 there were living in the United States 11,695 persons between ninety and one hundred years old, and, as stated above, 2555 upwards of one hundred years—the number of whom, of eaeh class, residing in the several States and in the territories, is exhibited in the following table:

Number of Persons living in the several States and in the Territories, in 1850, *between* 90 *and* 100 *and over* 100 *years of age.*

States.	90 and under 100.	100 and upwards.	States.	90 and under 100.	100 and upwards.
Alabama.....	392	163	New Hampshire...	406	12
Arkansas	39	24	New Jersey.....	252	25
California.....	8	. .	New York.....	1399	88
Columbia (District)	30	7	North Carolina....	727	249
Connecticut.....	323	10	Ohio	606	58
Delaware	54	9	Pennsylvania	823	75
Florida	62	36	Rhode Island	94	3
Georgia.....	595	221	South Carolina....	586	206
Illinois	118	18	Tennessee	572	148
Indiana	289	32	Texas	49	39
Iowa	24	1	Vermont.....	259	10
Kentucky.....	555	157	Virginia	1229	389
Louisiana.....	255	176	Wisconsin	19	2
Maine	332	13	Minnesota Territo.	2	...
Maryland	447	131	New Mexico "	87	40
Massachusetts.....	613	19	Oregon "	2	...
Michigan	67	9	Utah "	...	..
Mississippi.....	238	140			
Missouri.....	142	45	Total.....	11,695	2,555

Here is presented a sufficient number of examples of great longevity, though small in comparison with our whole population, to convince us that the *natural* term of human life is very far beyond its actual average or ordinary duration. Then what a race of murderers and suicides are we!

MAY LONGEVITY BE PROMOTED, AND THE VIGOR OF YOUTH EXTENDED INTO AGE, AND HOW?

More interesting questions can scarcely be propounded. What would we not give for immortal youth; and what pilgrimages would we not make, what dangers, privations, and exposures would we not brave, to be enabled really to drink of the fabled fountain whose waters we are told confer it! How many a pang is caused by the first tokens which visit us that we have reached the summit of life's road, and must commence our descent! And as time begins to sprinkle his frost on our heads, tally the years in wrinkles on our brows, and wither the strength of our frames, how we fight against the fact that we are *growing old!* Many, there may be, who, assured of a "good estate beyond the grave," can truthfully say, "I would not live alway;" but there are none who do not desire health, strength, beauty, and vigor while they do live.

We cannot indeed stay the progress of time. We must grow old. Nor can we avert the natural influences of time upon our frames. There will be written on our faces the traces of its flight so truly that they become an almost unerring dial, indicating at a glance the years we have numbered. But while this is true, it is also true that if we were to live perfectly in accordance with the laws of our being, we might (casualty excepted) not merely reach fourscore and ten, but a century; and retain far longer than we do the bloom and the strength of youth and mature age.

From what I have said in the preceding pages it is clear that the cause of the failure of the powers, of the wrinkling of the skin, the shrinking of the flesh, and the hardening of the tissues, which occur from age, are the result of a decline in the activity with which the functions of nutrition and excretion are carried on. If these functions could be maintained in equal perfection at all periods of life; if time and the use of the body wrought no change in them; then our powers would never fail, and our life would be one of perpetual youth. But it is a law of our frames that, after they have reached their full growth and development, with each successive change in the process of nutrition and excretion, the formative power in the elements of our bodies, and the organizing vitality of the living tissues themselves, must in a degree decline. The reparation of the body goes on less and less actively, the dead or effete matter is more and more slowly carried off, and the organized tissues less and less rapidly exchange their worn-out particles for new and more highly vitalized elements. All the aliment received into the system is therefore retained and used in it longer and longer the older we grow. The interstitial absorption and excretion become gradually less and less active.

The effete portions of the bones are not removed perfectly, and gradually they become brittle. The muscles of the old man grow rigid and stiff, and unable to sustain the resistance which they once could. Those of the back, which preserved his figure straight and erect, now yield; he stoops forward from the weight of the shoulders and chest, and seeks support from his cane. The muscles of his legs, that once bore him active as the roebuck, now just suffice to convey him tottering around his room. The muscles are now made up of elements that have been long used; consequently, their strength, elasticity, and contractility, are diminished. The pulsations of the

heart become slower; the consumption of the blood is slow and the heart cannot thoroughly play, because it is filled with the ashes of decay. Indeed, all the organs of the body are impeded and encumbered. The eye, degenerated in its circulation, admits only faint shadows—its images are poorly defined—the sight is imperfect; the hearing becomes obtuse—the vibrations of the air strike upon parts which once trembled to the slightest breath, but now are rigid and insensible, unmoved perhaps by the roar of the thunder or of the cannon: they cannot respond to the vibration of the moving air or convey sound to the brain. These remarks hold good with reference to all the senses—smell, touch, taste, &c.

The advance of age is shown more clearly than anywhere else, perhaps, in the decline in the *capillary circulation*, as seen in the shrivelling and wrinkling of the skin covering the face.

In some instances the face, in the multiplicity of its wrinkles and the depth of its shrinkage, has the appearance of an apple long dried in the sun. The cause of this change is a want of active circulation of the blood and the fluids of the body in the capillaries. For want of activity and vitality in them they become obstructed more or less, and the fine capillary circulation diminishes year by year, until all the beautiful mesh of blood-vessels that occupy the face and allow the color to go and come with every varying emotion, become nearly obliterated; and also because interstitial absorption declines in all these localities, the circulation of blood becomes more and more limited and restricted, and the process of reparation is less perfectly accomplished.

We have seen that the continuance of life and health depends upon the action of the interstitial absorbents, the capillary vessels, and the organs of nutrition and excretion, which carry subsistence and vitality to the minutest portions of the system, internal and external, thus preserving the color, plumpness, softness, and delicacy of every part, and removing all the effete or useless portions of the fibres of each organ. So long as these wonderful processes of excretion and reparation go on uninterrupted, it is not possible that there should be any other condition than that of perfect health. If they are in any degree interrupted, it is as impossible that disease can be avoided. If the interruption is slight and temporary, so may be the disease; but just in proportion to the derangement of these functions will there be a departure from health. We have seen

also what are the principal laws which govern and control these functions.

It is generally a condition of health and longevity, that the action of the forces of the system shall be in harmony with each other; that the organs of the body shall be developed equally and in harmony, as nature requires; and after the body is fully grown, that no one organ shall be exercised in excess so as to weaken it, and, in proportion to its importance, weaken the whole system.

Such are the phenomena which take place, in the progress of time, in the system, under the operation of natural laws. If so, it is easily seen that any influence or cause which tends to impair the functions described, must produce derangement and shorten life; and that all departure from correct living must hasten the decay and decrepitude of age. It is also clear that, by correct living in all respects, disease might be almost entirely avoided, and life, with its pristine strength and vigor, greatly prolonged.

SUGGESTIONS ON THE MODE OF PRESERVING HEALTH AND ATTAINING OLD AGE.

Although I have heretofore quite fully indicated the means of preserving health, I will here group them together, even at the hazard of repetition. From their importance, they cannot, in fact, be too often repeated.

(1.) As the great source of vigor and vitality—that through which all the power of the system is derived—the lungs should always have our first care. They should be, as they may be, kept large and strong, the figure erect, the shoulders thrown back off from the chest, and the chest well expanded. No person can have robust health or attain a great age, with small, feeble lungs. The thing is an impossibility. As well expect a large stream to flow from a diminutive fountain. It is in the lungs that the nutritious elements receive the vitality by which they have the capacity to be received into the system in the process of nutrition, and built up into living tissue. It is through the lungs that much of the *debris* and waste of the system is expelled. It is by the agency of the lungs that the heat of the system is produced. We must have, therefore, large, sound lungs if we would have good health and long life.

(2.) Perfect nutrition is essential. In order to this, the process of

digestion must be completely and perfectly accomplished. To secure this result, we must have proper food, of a good, wholesome, nutritious character; which must be taken in sufficient, and not too great, quantities, and at regular intervals. All deleterious articles of diet, and all irregularities in diet, must be avoided, and all excesses refrained from. The correct rules of diet are given in a former chapter. They must be observed; and they *can* be observed, if there is a will to do so.

(3.) Active bodily exercise must be practised more or less daily; without it health and vigor for a long life are impossible. Action—activity, use, employment—is a law of animal life. I would here remark that it is always injudicious and dangerous for persons over fifty years of age to leave off their accustomed employments, or to attempt others with which they are not familiar; but let the maxim not be forgotten, that "it is better to wear out than to rust out." The wear of the system in exertion and labor, if not too great, is far less injurious than the rust of it in luxury and indolence. Many men, having been successful in their pursuits and accumulated a fortune, retire from the burdens of business, thinking to enjoy themselves in the absence of care, and realize an Elysium in rest and in the luxuries which their industry has procured. But they soon learn their fearful mistake: their minds become a prey to *ennui*, and often to the most distressing depression, arising from the necessity of occupation, which the system at all times requires. Man or woman, possessing any vital energy at all, cannot possibly endure idleness and indolence with impunity; for under these circumstances, thus deprived of their natural stimulus, they almost always sink into untimely graves. I would say to all—action! action! and let the efforts of life and the motives to effort be always as fresh and strong as in the morning of life. Resist sloth energetically. Still, as there is a limit to our strength, so there is a limit beyond which we cannot go in exercise—too long, protracted, and exhausting labor and fatigue, which reduce the vital forces, should be avoided. So should exhausting and excessive indulgences of all kinds.

(4.) Great attention should be paid to the habitual condition of the organs of excretion—the bowels, the kidneys, the skin, &c.—particularly the bowels and skin. These are the sluice-ways of the *debris* of the system. Health must decline, and the natural effects of time on the body be exaggerated, if these lose any thing of their ac-

tivity or become torpid. Constipation and all tendency to it should be arrested at once; and the skin should at all times, by bathing, ablutions, frictions, &c., be kept clean, pure, and active.

If these simple rules were universally regarded, the average of human life would be greatly increased, and most of us would as certainly attain old age, accidental violence aside, as a steam-engine runs until it ceases from the natural wear of the parts. By these means the nutrition of the body would be perfect, the waste matter would be completely and continually removed, the health-giving life-currents would bear to every part the elements of continual reparation, the capillary circulation would be actively maintained, and thus the smoothness, fulness, softness, and bloom of the skin—the elasticity and vigor of the muscles, and the strength of the bones would be preserved. We should have a long life of health and pleasure, and fall at last into the kindly embrace of death, without disease and without pain.

A PURPOSE IN LIFE NECESSARY TO LONGEVITY.

It is necessary to the activity and endurance of both mental and bodily efforts and strength, that life should have a purpose every day. What are called "castles in the air" are not always to be condemned; not if, while the imagination pictures the possible, we purpose to make her pictures realities. Purposes, and large purposes, in life are necessary to develop the highest powers and accomplish the greatest achievements, whether mentally or physically. Without a purpose or object in life, men and women become tired of it; life becomes a burden, and they are careless of its preservation. Even in advanced age a definite object for action is most valuable to us, and most necessary to the preservation of life. Even a trifling motive is better than none at all; while the highest is necessary to develop the utmost capacity in man, and will often stimulate to great effort, and the exhibition of great energy, at periods long past the age when most men retire from action, and as a consequence often find a comparatively early grave. One hour of active exercise for some useful object is worth three hours of exercise without any object but mere health or pastime. For this reason I strongly urge the sick, who would recover their health, the weak, who would regain their strength, and those who perceive the approaches of age, to seek useful, agreeable, and health-giving employments—

such as occupy both mind and body—and set before themselves a distinct and definite object.

The injurious effects of a want of stimulus to action are noticed daily in thousands of individuals of all classes, professions, and employments—merchants, lawyers, physicians, clergymen, statesmen, literary men, artisans, farmers, laborers, &c. When any of these lay aside their armor in which they have achieved their highest triumphs in the great battle of life, and conclude they will work no more, it is often, I may say usually, the case that, from indolence and lethargy, and the absence of this stimulus to action, a rapid decay both of mind and body soon takes place. The consciousness that they are useless has a most depressing effect, and tends to shorten life. In all the professions and employments, the men who continue in advanced age actively engaged are most likely to retain their health, strength, and vigor. Notice, for example, such men as Dr. Valentine Mott, Washington Irving, Lord Palmerston, and Humboldt, now at an age when most men are found withdrawn from the active pursuits and responsibilities of life, "still pursuing, still achieving" their high purposes with all the enthusiasm, and nearly all the vigor of the days of their greatest strength and physical energy. In fact, they exhibit but little evidence of physical, and none of mental decline. What a contrast between such men and those from whom all incentives to activity are removed! Look at the scene presented in the English poorhouses—an extreme case I admit, but one that illustrates the principle. Here the inmates, and particularly the aged, are deprived of all motives to live. Husbands and wives are separated; there is no conversation with old friends, and no indulgence in accustomed habits, not even the habitual pipe, which might occupy and solace the heavy hours; and, as might be expected, it is a fact of universal remark how rapidly these persons pass into a state of imbecility, both of body and mind—a sort of semi-idiocy, and soon die. They often sit all day in perfect listlessness without speaking and scarcely moving—a striking example of what all may become by indolence and want of purpose in life.

SHUN ALL VICE AND CULTIVATE THE VIRTUES IF YOU WOULD HAVE HEALTH AND LONG LIFE.

There is a most remarkable coincidence between the laws of life as impressed on our physical, moral, and mental constitutions, and

the moral laws of God as revealed in the sacred Scriptures. All the vices, without any exception, are injurious to life and cut short the days of man; while all the virtues are favorable to his longevity. The virtuous and pure and holy in heart and life, the just and the good, are, by the practice of their virtues, rewarded by "length of days," as well as by "ways of pleasantness." The declaration of the sacred writer that the wicked shall not live out half their days, is a truth founded in the nature of things. They violate the laws of their being, and in doing so they break down the structure of their frames and the powers of their constitution, so that life cannot go on, and they must necessarily die at an early period. Some there are whose constitutions are naturally very feeble and frail, and this often, very often, from the vices of their ancestors. Thus are the sins of the father visited upon the children; yet with these frail constitutions and feeble frames much, very much, may be done to restore the individual to what his father lost, to bring back a medium constitution, and to transmit a good one to his children.

Indeed, the true laws of God are the true laws of life; and the infringement of these laws, under any circumstances, will contribute to shorten life. Whilst the constitution with which one is endowed may carry him, in the practice of virtue, to one hundred years, his vices will cut him off at half that period. It is a fact, confirmed by every day's observation, that the vices always conflict with human life, filling man with disease, which often extends to his posterity; while the virtues, inculcated in sacred writ, are perfectly harmonious with his whole being, and calculated to bestow health and happiness upon him continually, insuring this blessing to all his posterity, if they too obey the same laws: he living on, his "bones full of marrow and his flesh full of sap," until by the most imperceptible degrees, far onward to the end of his century, he feels the approach of age and the decline of his powers; and is at length, quietly and gently, gathered to his fathers, a monument and illustration of the harmony of the perfect laws of God. I do not mean here by the expression "perfect laws of God" those spurious interpretations which have been and are sometimes made by man for selfish purposes. Let every one carefully investigate for himself, and study to know what are the true laws of God as applied to man's conduct, and learn to separate them from the false interpretations of misguided or wicked men.

Every individual, whether male or female, after arriving to the years of accountability, has his or her own secret history; and it is from the secret actions of their lives that most of the good and most of the evil of their existence flow. The tree, rooted deep in the earth, derives its nutriment from the soil; far down amid the darkness the little rootlets, so fine as scarcely to be noticed, imbibe the nourishment and the juices which, carried upward, develop, support, and sustain it. Let these rootlets be weakened or diseased, or let them struggle in an ungenial soil, and then what might otherwise have been a mighty oak becomes a stinted and withered thing, shorn of its beauty, presenting no umbrageous foliage, producing no fruit for man or beast. So it is with the human being. Every declared greatness, every manifest usefulness, all the influences that tend to the continuance of our lives, are developed and sustained by those individual actions which spring from the deep and hidden recesses of the mind, unscanned by mortal eyes, unknown but to us and to our God. Here in these silent chambers of the soul are plotted by the wicked deeds of evil and machinations of crime, which bring forth not health and prosperity, but inevitable destruction. Here also the good and the just commune with themselves and their God, devise their schemes of industry, usefulness, benevolence, and goodness, which, like pure crystal waters, flow forth to refresh and sustain all around them; and, becoming refluent, purify and beautify the soul of the giver, contributing necessarily to his personal happiness and the continuance of his days. Thus I would exhort every person who desires length of days, to study carefully the emotions of his own heart and the secret aspirations of his soul—to profit by the examples of the good, and treasure the teachings of the wise.

CHAPTER XXXII.

MEDICINE.

ITS MISSION.

MEDICINE has a beautiful, a beneficent mission; and when not thwarted by ignorance or prejudice, her mission is always nobly accomplished. She comes to the weary sufferer with the promise of relief from pain, and to the dying with a new lease of life. She brings light and gladness to the dreary gloom of the sick-chamber, and whispers assurance that the hand which threatens to tear from the embrace of affection its idol, shall be put aside. She comes forth from the bosom of nature radiant with mercy, and ladened with healing treasures gathered in western wilds, in orient climes, on India's plains, in God's laboratory, the commissioned foe of disease and mediator with death. Where she bestows her gifts,

> "On the cold cheek of death, smiles and roses are blending,
> And beauty [and strength are preserved] from the tomb."

If the reader is inclined to smile at this as the over-wrought language of rhapsody, I might ask him to pardon something to the enthusiasm naturally awakened by daily witnessing for years the beautiful, blessed results of *medicine* correctly employed—the pain and suffering removed; the broken and shattered constitutions repaired and reinfused with strength and vigor; diseases, obstinate, torturing, protracted, that had crushed out all hope of relief, arrested and cured, and thousands of gasping victims rescued from the very jaws of death. But I need not do so. It is not rhapsody, but "the language of truth and soberness." The real value of true medical remedies, and of the skill that can properly employ them, cannot be over-stated. They are as priceless as human happiness and human life.

PREJUDICE AGAINST MEDICINE UNFOUNDED.

I am aware that in the minds of many persons there are unpleasant associations and impressions connected with *medicine*. But these spring from its abuses—the errors, the false philosophy, and the mistaken practice of those who administer it; from the unnecessary torturing, the sickness, the nausea, the prostration *inflicted* by the physician, upon the wretched plan too often adopted of "making the patient *worse* before he is made better." Not a few have occasion, I am sorry to say, for the opinion very generally held, that *medicines are injurious*—that they cure one disease by creating another, when they cure at all—that they should be shunned as an evil, and resorted to only when life is imminently threatened. No doubt immense injury is often inflicted by what is administered as medicine. But this, I say again, is the *abuse* of medicine. Such a result need not be experienced. Patients need not and should not be made sick before they are made well. I speak more particularly now of those afflicted with *chronic* disease. In some cases of *acute* disease, a slight and temporary aggravation of unpleasant symptoms may, it is true, become necessary, as in the administration of emetics, for instance. But as an almost universal rule, the increased discomfort often induced by medical treatment is unnecessary and really injurious. In the correct employment of medicine, the aim should be to relieve pain and suffering at once; to build up the strength, not to reduce it; to soothe and comfort the patient, and not to torture him. So, too, no remedies or combinations of remedies need ever be used, or should ever be used, that by any possibility can themselves inflict injury.

VEGETABLE, AND NOT MINERAL REMEDIES SHOULD BE USED.

There is a vast variety of remedies that are peculiarly congenial to the human system, or may be rendered so by art, being at the same time foes to disease. Nearly all of those of any permanent value are not formed by mortal hand; they are found in nature's laboratory—the vegetable world. Mineral medicines, the products of art, are usually injurious to the system; and if in any manner long continued they will pervade its whole extent, and the vital forces may

not have power to throw them off. The compounds of mercury, copper, lead, silver, &c., if much employed will permeate the whole body, becoming permanently fixed in, and injurious to it; whilst nearly all remedies from the vegetable kingdom have but a transient influence, and never accumulate in the system so as to remain there during life. The vegetable remedies, when judiciously employed, never leave an injurious impression upon the system, because they will leave the system after the occasion for their use has passed. Not so with mineral medicines; they may be employed, and the object for which they were given may possibly be attained, and yet the patient may become an invalid through the injurious effects of their presence in his system. The disease for which they were given may be cured; but the mineral remaining creates a disease of itself, oftentimes ten times more injurious than the one for which it was given.

There are some vegetable medicines which may, it is true, by long and continued use, produce a lastingly deleterious effect upon the system—such as opium (and tobacco perhaps in some individuals): other vegetable narcotics might be mentioned whose injudicious and long-continued and unnecessary use has been productive of mischief, and which may be the cause of a permanently injurious effect upon the human constitution. But such an exhibition of these agents is never necessary.

I do not know of any disease which may not be cured, if curable by any means, without the use of mineral remedies; although in some rare cases, and for the sake of a more speedy action, they may cautiously be used with advantage. But remedies exist in the vegetable world, as a general rule, sufficient to counteract all possible disease when the proper one is given at the proper time in the proper quantity and in the proper manner, so far as it is possible to counteract it at all. There is a time in the history of every disease when remedies may be employed too late, when the vital forces have yielded, and nothing can resucitate them; but who shall determine this period? In some instances remedies fail in the hands of one physician, when another more skilful can be called much later, and the patient be saved.

THERE IS HOPE WHILE THERE IS LIFE.

Where the changes of the organic structure are slight, although the vital powers are greatly reduced by fever or by inflammation, or from exhausting discharges, the patient may sometimes be saved even when almost in the arms of death itself. It is then that the true physician, the *artist* in medicine, by the accuracy of his prescriptions, may vindicate its claims to our utmost confidence and homage. Very few physicians possess this power in *all* diseases; some will excel in treating one disease, some in another; and, therefore, it behooves every intelligent man to make himself acquainted with the powers and capabilities of all medical advisers within his reach, so that in the day of peril he may find the assistance he requires, if not in one physician, then in another; there being no fault in the capabilities of remedies themselves, no want of *efficiency*. There may be, too, no deficiency in the vitality of the patient, that he cannot be cured; only requiring the physician who knows the right remedy, and how to administer it correctly. I will mention a few instances to illustrate what I mean.

EXAMPLES SHOWING THE VALUE OF TRUE REMEDIES.

In the October of 1853, on a Sunday afternoon, two gentlemen called on me from Rahway, New Jersey, and stated to me the condition of their brother. He had been sick for several weeks with bilious fever, and when they left it was feared that he was dying. He was attended by two very respectable physicians, one of whom was a class-mate of mine in a medical college in Philadelphia. Intelligent and experienced they both were.

On returning to their brother he was still alive, but unable to move or speak. He only breathed and occasionally moved his eyelids. A cold perspiration poured from him, drenching him almost as if water had been poured over the surface of his body. His disease seemed so certainly fatal and his condition so utterly hopeless, that even preparations were made to lay him out. His wife, overcome by three weeks nursing and nightly watching, took leave of him, and retired to her chamber. His physicians had abandoned all effort and all hope for his recovery.

His brother and sister then administered the remedies that I directed, and the next morning, when his wife came down from her room, he was able to converse with her, and soon entirely recovered.

In January, 1845, I spent a few days in New London, Conn. On one cold morning a physician called on me, stating the case of a patient then lying very dangerously ill from inflammation of the lungs. The doctor informed me that he did not expect to find him alive on his return, but at the earnest solicitations of his family he had come to me.

I gave him the remedies I thought suitable, and said to him that if on his return he found his patient alive, he might be sure this medicine would raise him up. When he arrived at the patient's house he was informed that he was dead. After staying a few moments at the fire to warm himself and to restore the circulation to his benumbed fingers, a person came from the sick-chamber saying that the patient had revived. The doctor immediately gave the remedies as I directed, and the sick man recovered, and has since visited me in New York.

I will mention another case which shows both the value of counsel and the obstinacy of prejudice.

About forty years ago a brigadier-general of the State Militia of New York—a gentleman of the old school, between fifty and sixty years of age—a large fleshy man, of full habits, was taken very ill with scarlet fever, and in a short time was pronounced entirely incurable by his attending physicians. This intelligence was communicated to him. He was a man of great energy, was wealthy, and had an extensive household. He immediately summoned his men before him, and directed them to call every physician resident within fourteen miles of his house; and soon there assembled rather a medical convention than a consultation, for a very large number of physicians gathered. All, after a careful examination of his case, pronounced it utterly hopeless, except one;—he proposed a change of treatment, and held out a hope of cure. In answer to what this treatment would be, he said he would wrap up the burning general in sheets wet with cold water, and afterwards pour cold water over him, and in this way bring on excessive perspiration, reduce the fever, and possibly save his life. Without one dissenting voice, all the other physicians declared that when the first drop of water went on

to him his soul would go out of him. Notwithstanding this, he dismissed his other medical attendants and bravely adopted the cold-water treatment. As the cold water was poured upon him, the hot steam rose to the ceiling, but the *afflatus* of his spirit was too refined to go out with it, and therefore remained within him. Eight days afterwards the brave general rode at the head of his brigade at the annual review—his health apparently as good as ever. Water may, no doubt, often be employed as a *medical remedy*, both in acute and chronic diseases, with the most beneficial results. So, too, as the above case illustrates, many persons are undoubtedly given up to die, and do die, when they might be cured if their energies were roused and if proper remedies were employed.

There are many true medical remedies which are not drugs—which are neither mineral nor vegetable: for example—*water*, as in the above case; also

CHANGE OF AIR AND CLIMATE.

Change of air and residence often becomes a great remedy. I have known, in many instances, asthma entirely cured by change of residence. There are many persons laboring under chronic diarrhœa—residents of hot climates or of low marshy districts, or of prairie plains, as in many of our Western States, where the water is bad, where there is a great deal of *malaria* or ague and fever poison in the air, by which the liver becomes diseased, and thus a chronic diarrhœa is produced, or other serious disease established. These persons will find that often a change of climate, of the air they breathe and the water they drink, will be productive of the greatest benefit, and frequently of a perfect cure. Persons living in many parts of the Southern States, and especially in the Western States, by visiting mountainous districts, as found in Pennsylvania, New York, or in the New England States, often find themselves restored to health, or greatly improved, after a few months residence there. Again, invalids have frequently derived immense benefit from visiting the sea-shore—enjoying the sea-air and sea-bathing, &c.; and often those living in mountainous districts and on the sea-coasts, find themselves benefited by a residence in the Western, and sometimes in some parts of the Southern States. Oftentimes a voyage to Europe is attended by the happiest results; whilst many invalids of England, France, and

Germany, derive great benefit from visiting and residing in this country. Change of air, of water, of residence, of scene, of society, is not unfrequently a great medical remedy (if I may be allowed the expression), and productive of lasting benefits to the invalid. In all these cases it is important, however, for the patient to obtain the advice of an intelligent physician, who is able to direct in the choice of the best localities and the districts best suited to his particular condition. I would certainly advise, whenever practicable, consultation with such a physician for this purpose.

In cases of diarrhœa of infants and children, usually known as summer complaints, the most happy benefits are often obtained by taking them to the sea-shore in the summer, and keeping them for weeks under the influence of the sea-air. In this way they are sometimes fully restored, even from apparently the most hopeless conditions. Yet it is better to go before the patient is much prostrated.

TWO GREAT CLASSES OF REMEDIES.

There are two great states of disease, acute and chronic, requiring, the one active treatment, while the other is not so urgent in its calls for help. Adapted to these are the two great classes of remedies—those which may relieve temporary and urgent symptoms, and those calculated for more continued and less pressing symptoms. Among the former is blood-letting, sweating, vomiting, purging, powerful astringents, stimulants, sedatives, and reducing medicines, which may be demanded, and which, in the hands of the skilful and intelligent physician, may be employed with the most salutary and beneficial effects.

All diseases, as I have before said, are produced either by poison in the blood or loss of symmetry in the individual. This law of symmetry may be extended to the irregular circulation of the blood, which is shown in the symptoms of cold feet, painful throbbing in the head—from the rush of blood to it—short breathing, and oppression and palpitation of the heart. In this state it becomes the duty of the physician to equalize the circulation of the blood or to restore the symmetry of its distribution. He may also, by proper remedies, restore symmetry to the form, erect the stooping, make the crooked straight, expand the contracted chest, and sustain the falling bowels. The remedies for these last purposes must of course be mechanical,

and are now well known and extensively employed under the names of shoulder-braces, abdominal supporters, &c.

THE POISONS OF THE BLOOD DEMAND ANTIDOTES.

Humors in the blood, which constitute the greatest cause of disease, require medicines which will neutralize the poison, whatever it may be. All skin diseases of every description, including cancer, goitre, etc.—all, without any exception—arise from poison in the blood; so also does small-pox, chicken-pox, measles, whooping-cough, scarlet fever, and many others, some of which are transient and soon run their course—others are more permanent in their character. The physician should always have at his command specifics that shall neutralize these poisons, or obviate their effects if allowed to remain in the system; and he may be assured, by properly investigating this subject, that there is a vast number of medicines that act especially by neutralizing poison in the blood, and thus curing disease that could not otherwise be cured. There is, no doubt, a great variety of these poisons, and a vast many modifications and complications of them; and consequently one remedy will relieve one patient, a combination of remedies will relieve another, and a variety of remedies will relieve a third. But a most happy end is gained when the proper specific is discovered for the patient's disease.

I once knew of a lady, afflicted by cancer in the breast, who kept this terrible enemy at bay, and prevented any progress or increase of it, for forty years, by taking every day eight or ten grains of the extract of hemlock, *conium maculatum*.

SCROFULA COMPLICATED WITH HUMOR.

Scrofula or king's evil is a disease which is not supposed to arise from any humor in the blood, or from loss of symmetry; but from a deficiency in the vital forces, or constitutional powers of the system, by which the blood is not sufficiently vitalized, nor is it actively or equally circulated; hence its less vital materials are deposited in lumps about the neck and other external parts, and in the form of tubercles on the brain, lungs, bowels, etc. This low vitality of the system is often seen in the death of certain parts, as portions of the bones, etc., that mortify and come away by extensive and oftentimes long-continued ulceration.

Terrible diseases take place where scrofula or king's evil becomes complicated with a humor, as with salt-rheum, tetter, etc. Terrible ulcers, white swellings, diseases of the bones, joints, etc., often characterized by immense formations of pus, abscesses, etc., result from a union of king's evil and salt-rheum. Pulmonary consumption, in a large proportion of cases, results from a union of scrofula and a humor which settle on the lungs. Still, scrofula or true king's evil, in nearly all its forms of development, is curable by appropriate remedies; and remedies capable of curing this disease do exist and are known.

PREVENTIVES OF DISEASE.

There is another great class of remedies which may be called preventives, the purposes of which are to reinforce the vital powers of the system, keeping them firm and strong, preserving the purity of the blood and the symmetry of the person, so that the causes of disease may be arrested and their effects prevented; thus enabling a person to pass on in the enjoyment of good health for many years, even to old age, without ever having developed those diseases of which by birth he is the inheritor.

SURGERY AND MEDICINE.

I would say one word here in order that the reader may comprehend the difference between the surgeon and the physician.

In the office of the surgeon are comprehended operations for the repair of injuries, the change of position, or removal of injured or diseased parts. For example, if a joint is dislocated, it is the office of the surgeon to restore it to its place. If there is a tumor which threatens life or health, it must be removed. Has the patient an external ulcer? It is the surgeon's office to cleanse it and apply plasters and make other local applications. Thus far goes the surgeon. If the constitution is affected by the ulcer, it is the province of the physician to introduce constitutional remedies into the system, in any form which he pleases, by which the life and the power of the system will be elevated and sustained, so that the ulcer may heal, and the patient recover his health. Surgery is the application of remedies to local diseases; medicine is the employment of remedies for

constitutional diseases. Have you a sore throat? You perhaps apply nitrate of silver or make some other local application. But it is ten chances to one you will not cure the affection by these means; for the reason that it is a constitutional disorder, resulting from poison in the blood, which develops a true skin disease in the throat; and you must use proper antidotes to neutralize this poison, or you will not effect a cure. Now, the employment of these antidotes, through the general circulation, is the office of the physician; while the office of the surgeon is to make the local applications. So, in the case of those constitutional affections which make their appearance externally in the character of skin disease, whether in the form of pustules, pimples, blisters, scaly eruptions, blotches, ulcers, sores, or otherwise, we usually find the physician's and surgeon's duties united—both local applications and constitutional remedies usually being necessary. Local remedies will not cure them; often, indeed, they are not required at all. Constitutional treatment is always indispensable to a complete eradication of the disease from the system.

It is very unfortunate for a person suffering with any of these affections, to fall into the hands of the mere *surgeon*—one who discovers in his patient only *local* disorder, who despises constitutional remedies, and knows nothing of antidotes to the poisons which cause the disease—one who trusts wholly to the knife or to caustics, and who, when he has employed them, is unable to manage the case in hand by the sustaining, recuperative, and purifying agency of general remedies, so as to effect a *cure*. I must add, that there are too many thus unfortunately treated.

These remarks are perhaps better illustrated in the French hospitals than anywhere else. Here we find excellent surgeons, but poor physicians. The most difficult operations are performed with great skill, and then the patient is left to die for want of *medical* remedies adapted to restore the nervous system from the shock caused by the surgical operation, and to bring the patient back to health. After the knife has been used, the sufferer is too often left, as they say, to *nature* for a cure. Louis Philippe directed at one time that all the operations performed in the hospitals, with their results, should be announced through the newspapers, and the names of the surgeons given. The consequence was that the deaths from surgical operations diminished one-half in less than two months; as the notoriety of fatal results alarmed the surgeons sufficiently to induce them to employ

more freely remedies and curatives to restore their patients, than before had been the practice.

While the surgeon and the physician are thus seen to have distinct and independent duties, it is most unfortunate that they are not more generally united in one and the same person. Indeed, no man is prepared to practice surgery who is not as well master of the healing art, through the instrumentality of medicinal remedies, as of the surgeon's knife. It is even more important to the surgeon that he have command of the *materia medica*, than it is to the physician that he can skilfully handle the knife. The surgeon's services would be less frequently needed if the powers and capabilities of *medicine* were better understood and more thoroughly employed; as many diseases which it is now generally supposed can be cured only by painful surgical operations, would be found perfectly amenable to *medical* remedies.

I have spoken with earnestness, and frequently, in the course of this work, of the inestimable value of *medicine*—of true curative remedies—in ameliorating the sufferings, in abating the sicknesses, in arresting the diseases, and prolonging the lives of our race. But I have not spoken too earnestly nor too frequently. There *is* virtue and power and mighty efficacy in the remedial agents which God has given us. It needs but the patient research, the faithful, honest purpose, the kindly, sympathizing spirit, and the disciplined skill of the true physician, to make their virtue, power, and efficacy available in healing the sick and preserving life.

MEDICAL SKEPTICS.

I am aware that, even in the ranks of our profession, there are skeptics as to the value of medicines. But this unbelief is the offspring of disappointment, which has come to them from their errors, their false systems, and their mistaken use of medicinal agents. The root of their infidelity is in themselves, not in the art they practice or the agencies at their command. Says a philosophic physician—Cabanis—"In order to study and practice medicine in a proper manner, it is necessary to be impressed with its importance; and to be so impressed, we must believe in it." Here is the true base of medical character and success. If there were more of this heartfelt faith

in medicine among physicians, there would be more confidence among the people, because there would be more success in practice. But I live in the anticipation that a brighter day will dawn. I believe it will come. A glowing vision of beauty, of benevolence, of usefulness, and of happiness, rises on my view as I contemplate the grand and noble powers of hygienic and medical remedies applied to the prevention and cure of human disease. And I indulge the fond hope that, ere many years, the unhappy and almost unceasing differences among medical men will be healed; when private jealousies, personal interests, envious competitions, and all uncharitable feelings, will pass away from the medical profession; and when, uniting as a band of brothers in the great and noble and philanthropic work of developing to the utmost, and worthily applying, the priceless resources in their hands, each one shall walk forth, dignified by his profession, elevated by his learning, and ennobled by his virtues—proud in the consciousness of his usefulness, and in the greatness and holiness of his mission.

THE END.

ERRATA.

The lines are numbered from the top of the page, unless otherwise stated.

On the first page of the Preface, 4th line, for *there*, read *therein*.
Page x, (Table of Contents,) last line, for *tard*, read *mustard*.
" xiv, (Table of Contents,) 5th line from the bottom, for *uteri*, read *uterus*.
" xxiv, (Introduction,) in 8th line from the top, for *could*, read *can*.
" xxvi, " in 14th line, insert *the* before *fluids*; also, on same page, 19th line, should read "But whether there are or are not material agents that can act this," &c.
" xxvii, (Introduction,) 28th line, for *or*, read *nor*.
" xxx, " 15th line, for *in*, read *on*.
" xxxi, " 1st line, for *help*, read *helps*.
" 34, 16th line, omit *the* before *children*; also, same page, 18th line, for *whether*, read *such as*.
" 46, 4th line, for *ill*-ventilated, read *illy*-ventilated.
" 58, 11th line, for *are* read *is*.
" 61, 28th line, for *easier* read *easy*.
" 81, 4th line from the bottom, omit *all*, after *of*.
" 84, 19th line, for *visited*, read *treated*.
" 91, 18th line, for *infuses*, read *excites*.
" 107, 19th line, for *this*, read *these*.
" 121, 6th line, for *upon*, read *into*.
" 124, 28th line, for *characteristics*, read *characteristic*.
" 139, 14th line, omit *of it* after *conditions*.
" 140, 11th line, for *neglecting*, read *forbidding*; also, same page, 23d line, for *its*, read *their*.
" 150, 7th line from bottom, for *slow*, read *low*.
" 161, 10th line from the bottom, for *Hermaturea*, read *Hæmaturia*.
" 162, 7th line, insert *waste matter and*, after *convey*; also, same page, 10th line from the bottom, for *derangements*, read *derangement*.
" 177, 1st line, for *and*, read *or*.
" 186, 14th line from bottom, for *neal*, read *heal*; also, same page, 21st line from bottom, for *become*, read *becomes*.
" 190, 12th line, omit *the*, last word in the line.
" 191, last line, for *has*, read *have*.
" 192, first line, for *its origin and its perpetuity*, read *their origin and perpetuity*.
" 194, 5th line, after *wights* insert a (;) semicolon in place of the (,) comma.

Page 208, 12th line from the bottom, for *or*, read *nor upon*.
" 216, last line. omit *any*.
" 220, 5th line from the bottom. for *in itself*, read *to impose*.
" 231, 20th line, for *to*, after *attention*, read *upon*.
" 234, 12th line from the bottom, for *to*, read *and*.
" 246, 7th from the bottom, omit *to indulge in*.
" 247, 12th line from the bottom. for *were*, read *was*.
" 279, 4th line. after *meals*, insert a (;) semicolon; same page, 4th line from bottom, after *hereditary*, insert *catarrhal, congestive*.
" 281, 8th line from bottom, for *he had*, read *he employed*.
" 282, 5th line, for *cured*, read *colored*.
" 283, 7th line, for *instant*, read *incessant*.
" 286, 5th line, after *terminated*, insert *fatally*.
" 303, instead of first line, read *Case of Consumption from Pneumonia:* also, same page, 20th line from the bottom, for *perennial*, read *perinæal*.
" 304, before *Case XX*. insert as head line, *Case of Imposthumous Consumption*.
" 333, 19th line, for *is*, read *are*.
" 339, 2d line from the bottom, before *treated*, insert *among all those:* also same page, 10th line from the bottom, for *itself*, read *themselves*.
" 448, 15th and 16th lines. omit *the late lecture by*.
" 462, 21st line, for *had*, read *have*.
" 463, 10th line, after *medicine* insert *may be:* also, same page, 11th line, after *affections*, insert *and;* also, in 12th line, same page, after lungs insert (:) semicolon: also. same page. 13th and 14th lines, for *cathartic medicines*, read *they*.
" 479. 10th line, for *upon*. read *in:* also, same page. 16th line. for *upon*. read *in*.
" 482. 21st line. for *had*. read *has*.
" 492, 3d line, omit *the*.

Date Due

OCT 11 1963			

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